6

# SERVICE MANUAL

## MW/LW/FM STEREO
## CD MUSIC CENTER WITH
## REMOTE CONTROL SYSTEM

MC-75U

MC-71U

# CONTENTS


SPECIFICATIONS ..... 2
SAFETY INSTRUCTIONS ..... 3
CONTROLS ..... 4~5
ADJUSTMENT POINT ..... 6
ADJUSTMENT OF TUNER ..... 7~8
ADJUSTMENT OF CASSETTE ..... 9
ADJUSTMENT OF CD ..... 10~24
BLOCK DIAGRAM ..... 25
WIRING DIAGRAM ..... 26~27
PCB LAYOUT ..... 28~32
SCHEMATIC DIAGRAM ..... 33~40
EXPLODED VIEW ..... 41~42
CDP MECHA ..... 43~44
MECHANISM PARTS LIST ..... 45
CASSETTE MECHA ..... 46~48
REMOCON MECHA ..... 49
ELECTRICAL PARTS ..... 50~54


# SPECIFICATIONS

## AMPLIFIER SECTION

| | |
|---|---|
| Output power | : 30W/ch THD 10% |
| T.H.D | : 0.2% |
| Frequency Response | : 50Hz-30kHz |
| S/N Ratio (IHF, A) | |
| Phono | : 65dB |
| Others | : 80dB |
| Graphic Equalizer | |
| 100,330,1K,3.3K,10kHz | : ± 10dB |

## FM TUNER SECTION

| | |
|---|---|
| Tuning Range | : 87.5-108 MHz |
| Usable Sensitivity(S/N30dB) | : 20dB |
| Image Rejection | : 45dB |
| Distortion mono | : 0.25% |
| stereo | : 0.5% |
| Stereo Separation | : 30dB |

## MW TUNER SECTION

| | |
|---|---|
| Tuning Range | : 522-1620kHz |
| Sensitivity(S/N 30dB) | : 55dB |
| Image Rejection | : 35dB |
| Distortion | : 1% |

## LW TUNER SECTION

| | |
|---|---|
| Tuning Range | : 153-279kHz |
| Usable sensitivity(S/N30dB) | : 65dB |

## PHONO SECTION

| | |
|---|---|
| Player system | : Belt Driver Half-Automatic Turntable |
| Phono motor | : DC servo motor |
| Turntable size | : 28 cm(11″) |
| Turntable speeds | : 33-1/3rpm, 45rpm |
| Cartridge type | : Magnetic |

## CASSETTE DECK SECTION

| | |
|---|---|
| Frequency Response (Rec/playback) | |
| Normal | : 50Hz-12kHz |
| $CrO_2$ | : 50Hz-13kHz |
| S/N Ratio (CCIR/ARM) | |
| Wow and flutter | : 0.35% (WRMS) |
| Recording and Erase System | AC |

## REMOTE CONTROL TRANSMITTER

| | |
|---|---|
| Battery | : 3V (1.5Vx2 "AAA" type) |
| Dimensions(WxHxD) | : 62x190x20 |

## COMPACT DISC PLAYER SECTION

| | |
|---|---|
| System | Compact disc digital audio system |
| Disc | Compact disc |
| Laser | Semiconductor laser ($\lambda$=780nm) |
| Spindle speed | 200 r.p.m to 500 r.p.m (CLV) |
| Total harmonic distortion | Less than 0.19% (1kHz) |
| Dynamic range | More than 85dB |
| Channel separation | More than 80dB |
| Wow and flutter | Below measurable limit |
| Outputs | Line output 2V (0 dB) |
| Phones outputs | 20mW at 32ohms |
| Scan velocity | 1.5-2.0 m/sec |
| Number of channels | 2 Ch |
| Frequency response | 20-20,000 Hz± 2dB |

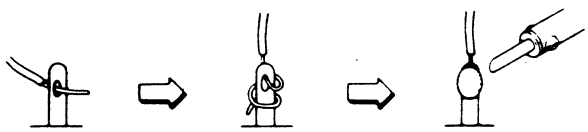
## GENERAL

| | |
|---|---|
| Power consumption | : 150W |
| Power supply | : 220/50Hz |

# SAFETY INSTRUCTIONS

## PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ ( * ) symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation.
   These must also be replaced only with specified replacements.
   Examples : RF converters, tuner units, antenna selectswitches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially :
   1) Wires covered with PVC tubing
   2) Double insulated wires.
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts.
   Note especially :
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
   5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.)
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

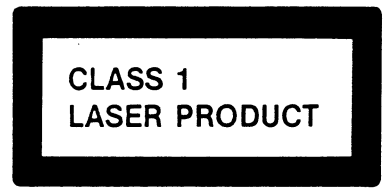
## SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakagecurrent or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.
The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal-input/output connectors, etc.) and the earth ground through a resister of 1500 ohms paralleled with a 0.15 μF capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5mA rms AC.
The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch(if included) "ON". The resistance should be more than 2.2 Mohms.

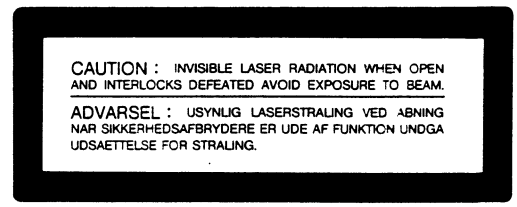
## PRECAUTIONS IN REPAIRING

When repairing or adjusting the unit, please note the following points.

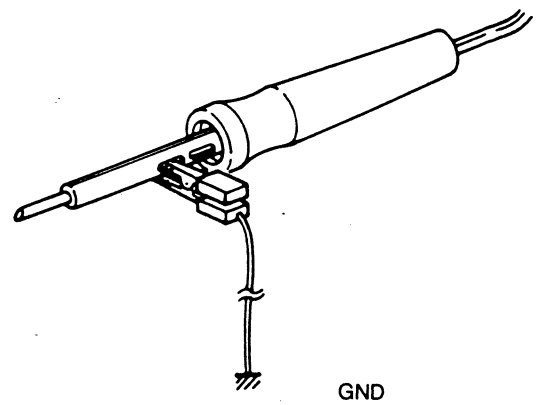
1. Do not put excessive pressure on the mechanical part (operation part), including the pick-up block, as extremely high mechanical precision is required in these parts
2. When the mechanical part or P.C. Board is removed for repair or adjustment, make sure that there are no metal objects in the narrow gap between the P.C. Board or the mecha parts and the base.
3. The micro-computer and the CD signal processing IC's can be damaged by static electricity or leakage from a soldering iron during repairing. While soldering, please take the precautions against leakage as in the illustration below.
4. Do not loosen any screws in the pick-up block. When handling the Pick-up block, please refer to the points to NOTE when replacing the pick-up block.
5. Keep safety from hazardous invisible laser radiation, DO NOT watch the laser beam (objective lens) directly.
6. Models for the some countries, laser warning labels are affixed on the unit and inside of the unit, as shown below. Read it carefully for your safety, when replacing or adjusting the unit.




A label affixed on the Rear chassis of the unit.


CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRALING VED ABNING NAR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION UNDGA UDSAETTELSE FOR STRALING.

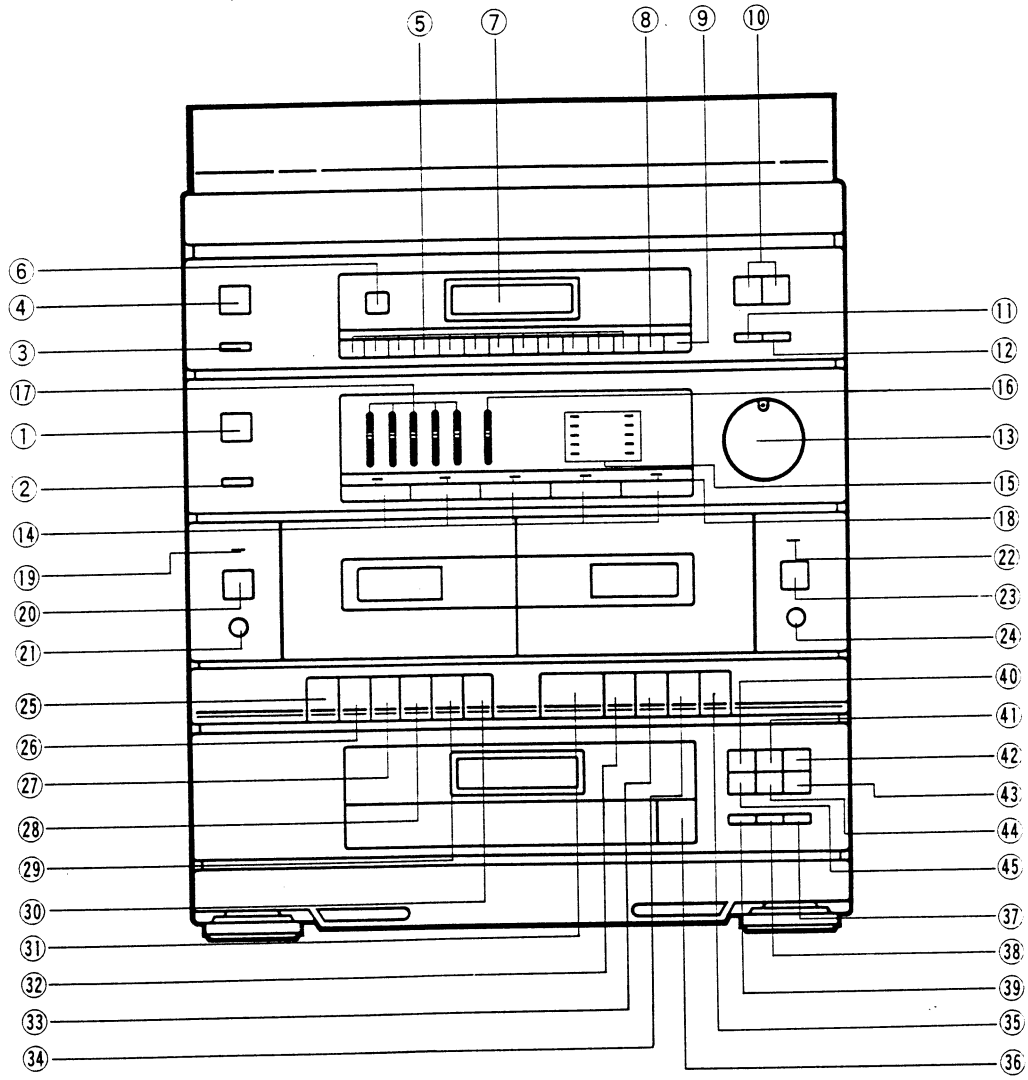
A label affixed on the Disc clamper inside of the unit.



GND

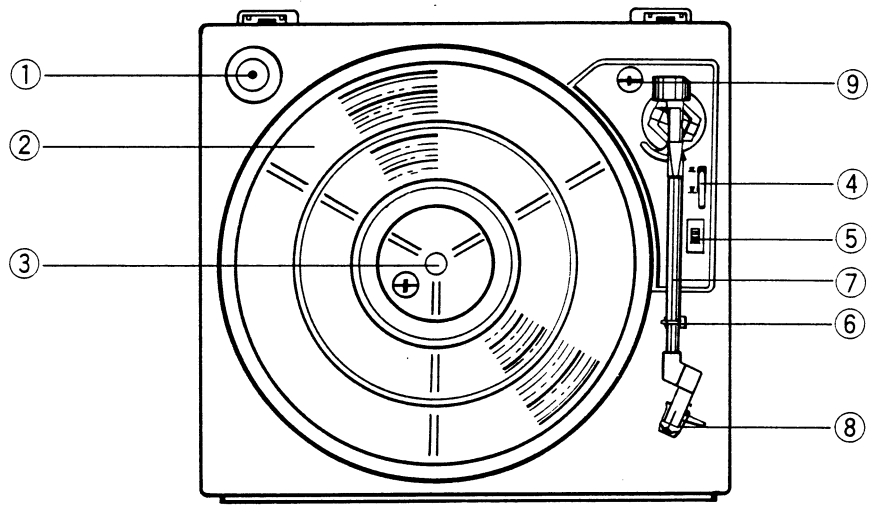
# CONTROLS

## FRONT



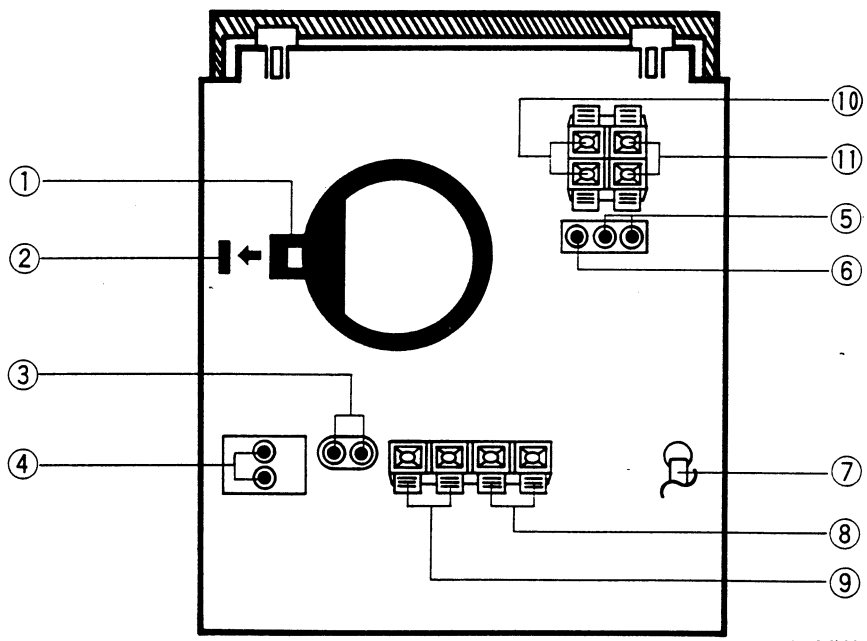

1. POWER SWITCH
2. SURROUND SPEKAER ON/OFF SWITCH
3. MUTE BUTTON
4. BAND BUTTON/TIMER CLEAR
5. PRESET MEMORY BUTTONS
6. REMOTE CONTROL SENSOR
7. DIGITAL DISPLAY
8. MEMORY, CLOCK ADJ BUTTON
9. AUTO/MANUAL BUTTON
10. UP/MIN ADJ, DOWN/HOUR ADJ
11. DISPLAY BUTTON
12. MONO/STEREO BUTTON(FM MODE)
13. MAIN VOLUME
14. FUNCTION SELECTOR BUTTONS
15. POWER LEVEL METER
16. BALANCE VOLUME
17. GRAPHIC EQUALIZER(5 BAND)
18. FUNCTION INDICATORS
19. RECORDING INDICATOR
20. TAPE SELECTOR SWITCH
21. HEADPHONES JACK (6.3φ)
22. HIGH SPEED DUBBING INDICATOR
23. HIGH SPEED DUBBING SWITCH
24. MIC JACK
25. RECORDING BUTTON( ● )
26. PLAY BUTTON( ▶ )
27. REWIND BUTTON( ◀◀ )
28. FAST FORWARD BUTTON( ▶▶ )
29. STOP/EJECT BUTTON( ■/▲ )
30. PAUSE BUTTON( ▮▮ )
31. PLAYBACK BUTTON( ▶ )
32. REWIND BUTTON( ◀◀ )
33. FAST FORWARD BUTTON( ▶▶ )
34. STOP/EJECT BUTTON( ■/▲ )
35. PAUSE BUTTON( ▮▮ )
36. OPEN/CLOSE BUTTON FOR CDP( ▲ )
37. DISPLAY (TIME SEL.) BUTTON FOR CDP
38. PROGRAM BUTTON
39. REPEAT BUTTON
40,41. SEARCH BUTTONS( ◀◀, ▶▶ )
42. PLAY/PAUSE BUTTON( ▶/▮▮ )
43. STOP BUTTON( ■ )
44,45. SKIP BUTTONS( I◀◀, ▶▶I )

## TURN TABLE




1. 45 rpm Adaptor
2. Turntable
3. Spindle
4. Cueing Lever
5. Speed Selector
6. Pick-up Clip
7. Pick-up Arm
8. Head Shell
9. Transit Screw

## BACK




1. MW/LW LOOP ANTENNA CSUPP
2. MW/LW LOOP ANTENNA HOLDER
3. SURROUND SPEAKER JACK
4. TV/VCR INPUT TERMINAL
5. MW/LW ANTENNA
6. FM 75Ω ANTENNA
7. AC CORD
8,9. SPEAKER JACK ("L", "R")
10. FM ANTENNA
11. MW/LW ANTENNA

# ADJUSTMENT OF TUNER

## CONTROL POSITIONS AND EQUIPMENT USED

- MW/LW and FM signal generator (MW,LW and FM-SG)
- Stereo modulator.
- Distortion analyser.
- Oscilloscope.
- AF Oscillator.
- AC and DC electronic voltmeter (EVM).
- Frequency counter.
- Chock coil(100uH)
- Resistor(100k).

## ADJUSTMENT OF MW VCO

1. Connect the test equipment to the set shown as drawing 1.
2. Set the band switch of this set to MW.
3. Set the receipt frequency to 1602kHz.
4. Adjust T406 to make DC 9V.

## ADJUSTMENT OF FM VCO

1. Connect the test equipment to the set shown as drawing 1.
2. Set the band switch of this set to FM.
3. Set the receipt frequency to 108,0 MHz.
4. Check whether the test equipment show DC 8V(In case of using tuner pack).

## ADJUSTMENT OF LW VCO

1. Connect the test equipment to the set shown as drawing 1.
2. Set the band switch of this set to LW.
3. Set the receipt frequency to 153kHz.
4. Adjust T405 to make DC 5V

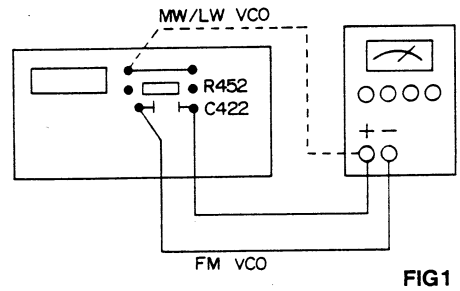


FIG1

## ADJUSTMENT OF MW RF

1. Connect the test equipment to the set shown as drawing 2.
2. Set the band switch of this set to MW.
3. Modulate the receipt frequency and SSG frequency of the set to 603kHz.
4. Make the output signal maximum by adjusting T401.
5. Modulate the receipt frequency and SSG frequency of the set to 1404kHz.
6. Make the output signal maximum by adjusting VC402.
7. Make the output signal maximum by adjusting T411.
8. Repeat two or three times the above point ③ ④ ⑤ ⑥.

## ADJUSTMENT OF LW RF

1. Set the band switch of this set to LW.
2. Set the receipt frequency to 153kHz.
3. Make the output signal maximum by adjusting T402.
4. Set the receipt frequency to 279kHz.
5. Make the output signal maximum by adjusting VC403.
6. Repeat two or three times above point ② ③ ④ ⑤.

**MW/LW SIGNAL GENERATOR CONDITION**

Modulation ..... 30%
Modulation frequency ..... 400Hz
Output level ..... 86d B

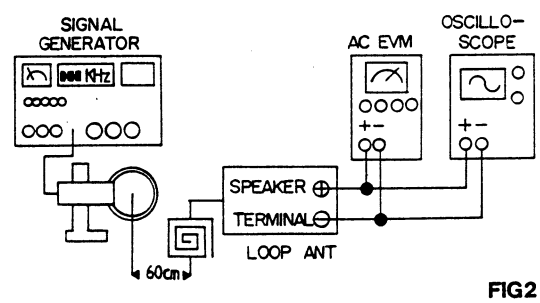


FIG2

## ADJUSTMENT OF FM RF

1. Connect the test equipment to the set shown as drawing 3.
2. Set the band switch of this set to FM.
3. Modulate the receipt frequency and SSG frequency of the set to 90.1 MHz (Reduce the ATT of SSG to come out the noise with output signal together).
4. Make the output signal maximum by adjusting L401.
5. Modulate the receipt frequency and SSG frequency of the set to 106.1 MHz.
6. Make the output signal maximum by adjusting VC401.
7. Repeat two or three times the above point ③④⑤⑥.
8. In case to use tuner pack, only check above point from ① to ⑥.

**FM SIGNAL GENERATOR CONDITION**

Modulation ····· 100%
Modulation frequency ····· 400Hz
Output level ····· 66dB

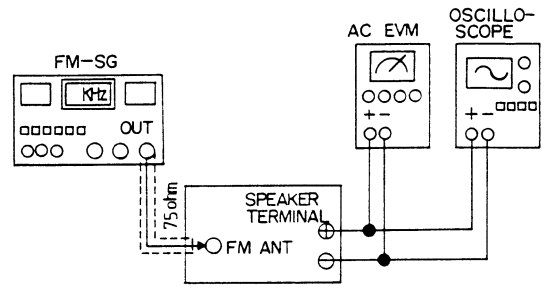



FIG3

## T · H · D ADJUSTMENT OF FM MONO

1. Connect the test equipment to the set shown as drawing 4.
2. Set the band switch of this set to FM.
3. Modulate the receipt frequency and SSG frequency of the set to 98.1 MHz.
4. Adjust the T409 and make "0" in the DC volt-meter (0 V± 30mV).
5. Make the T.H.D minimum by adjusting T410.
6. Repeat the points 4~5 four of five times.

*Note : Only use the non-metallic adjustment bar.*

**FM SIGNAL GENERATOR CONDITION**

Modulation ····· 100%
Modulation frequency ····· 400Hz
Output level ····· 66dB

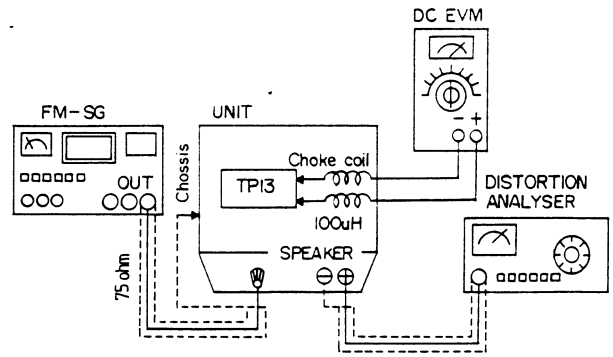



FIG4

## THE ADJUSTMENT OF FM STEREO VCO

1. Connect the test equipment to the set shown as drawing 5.
2. Set the band switch to FM and MODE switch to STEREO.
3. Modulate the receipt frequency and SSG frequency of the set to 98.1 MHz.
4. Make the STEREO maximum seperate by adjusting SV 401.

*Note : Check whether STEREO is displayed in LCD.*

**FM SIGNAL GENERATOR CONDITION**

Modulation ····· 0
Modulation frequency ····· 0
Output level ····· 66dB

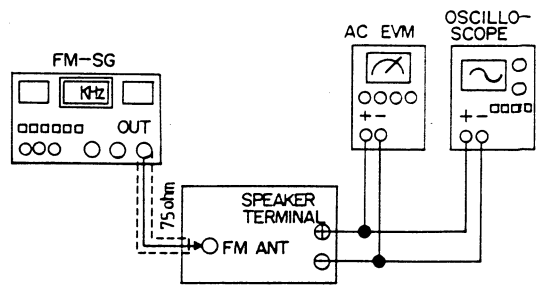
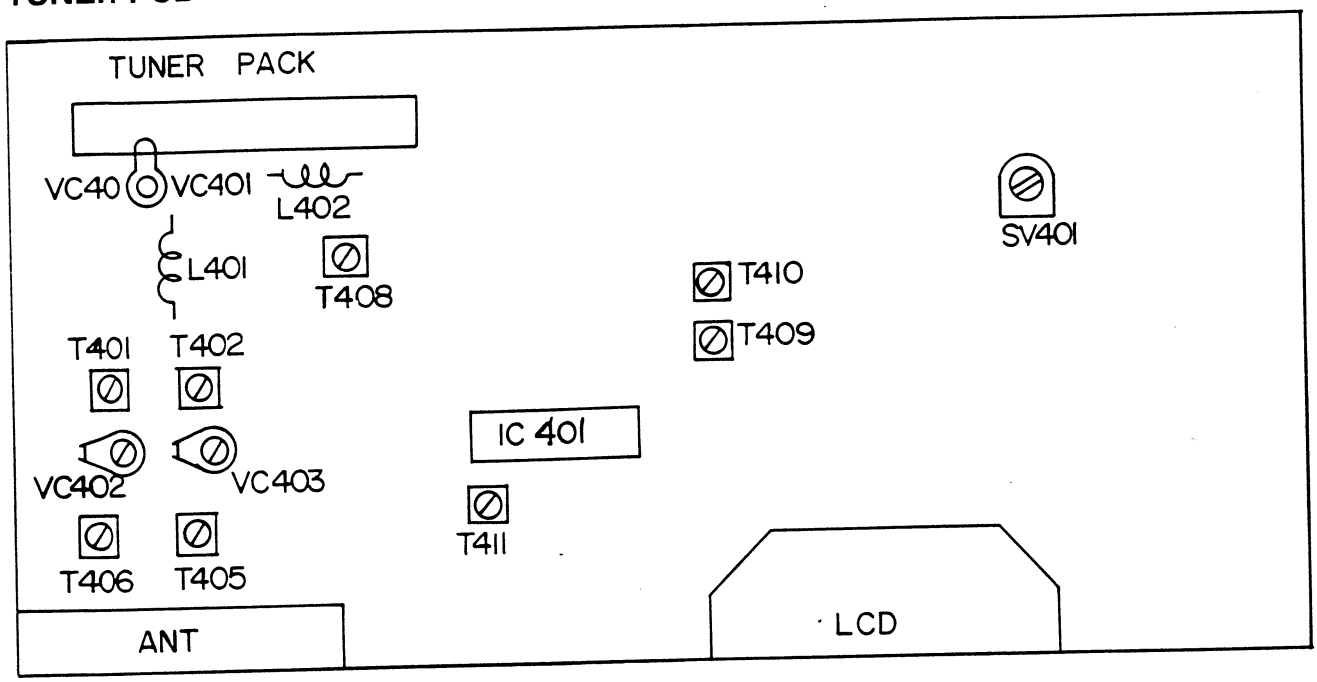


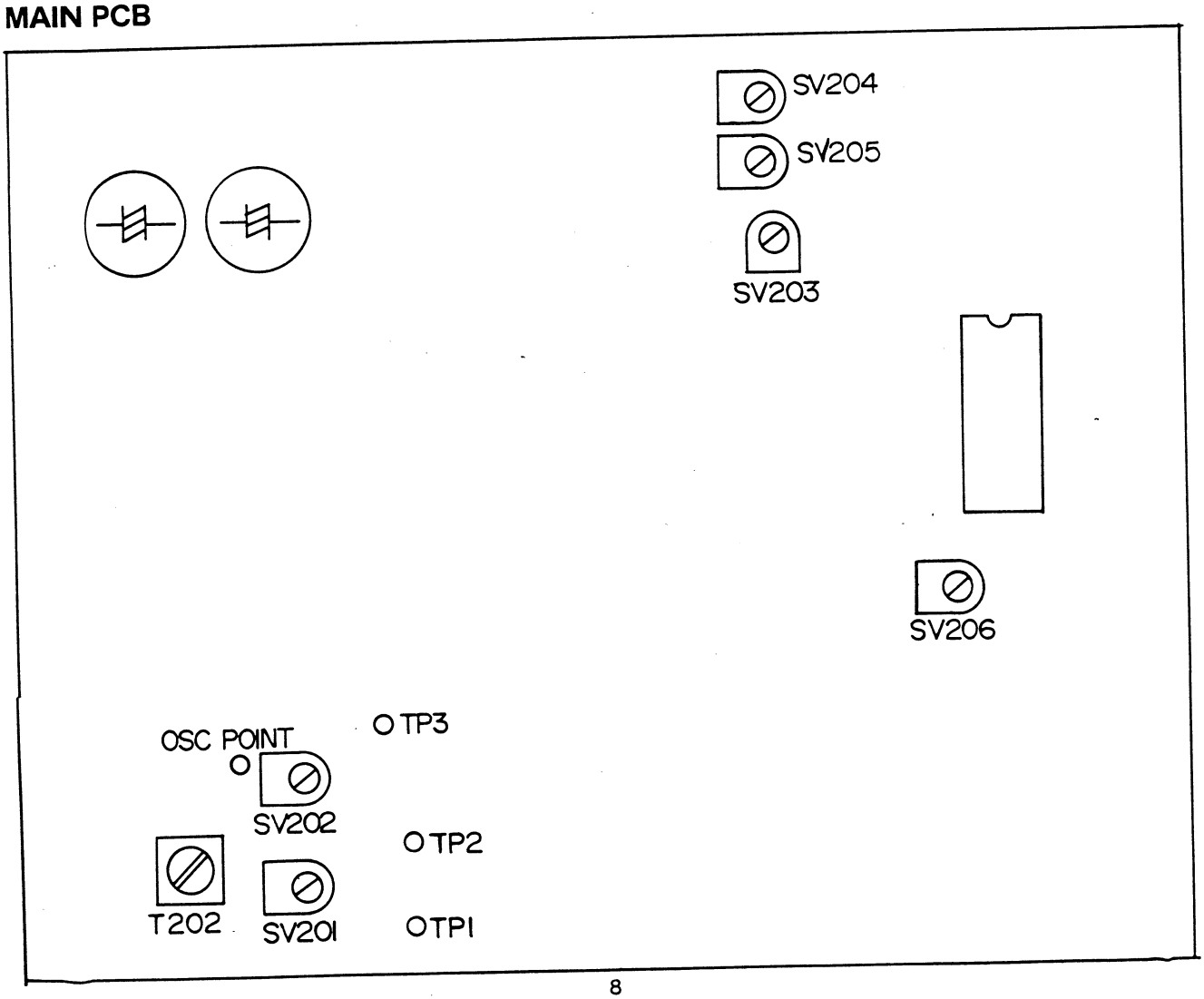

FIG5

# ADJUSTMENT POINT

## TUNER PCB




## MAIN PCB



# ADJUSTMENT OF CASSETTE

## MEASUREMENT CONDITION :

- Make sure heads are clean.
- Make sure capstan and pressure roller are clean.

## TEST TAPE :

- Head azimuth adjustment (10kHz,-10dB) : TCC-153
- Tape speed adjustment (3kHz, -10dB) : TCC-112
- Normal reference blank : TCC-103A

## ADJUSTMENT OF HEAD AZIMUTH (TAPE 1, 2)

1. Connect the test equipment to the set shown as drawing 6.
2. Set the selector switch of this set to TAPE.
3. Adjust the AZIMUTH SCREW of head to make the output.
4. At this time, the LISSAJOUS wave should be shown as a straight line on the scope.
5. Paint the locking paint between screw and angle after adjustment.

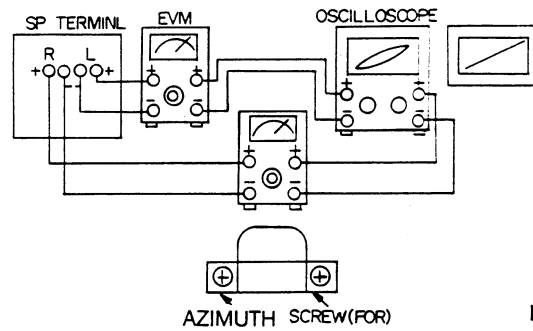



FIG6

## ADJUSTMENT OF TAPE SPEED

1. Connect the test equipment to the set shown as drawing 7.
2. Set the selector switch of this set to TAPE.
3. Generate TCC-111(3kHz, -10dB) in the TAPE 1 and put the recording TAPE into the TAPE 2.
   And let it be in DUBBING position.
4. Push the high speed switch.
5. Adjust SV205 to be seen the frequency 6000Hz± 60Hz on the frequency counter.
6. Set the HI SPEED SW to the OFF position (NOR DUBBING MODE) and make 3000Hz± 30Hz by adjusting SV204.

*Note : Adjust NOR. speed only after adjust the HI SPEED.*

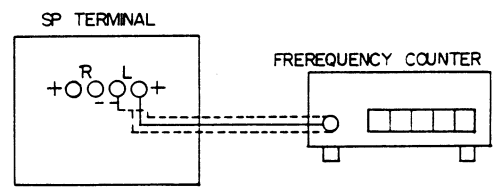



FIG7

## ADJUSTMENT OF BIAS FREQUENCY

1. Connect the test equipment to the set shown as drawing 8.
2. Set the selector switch of this set to TAPE.
3. Put the $CrO_2$ TAPE(MTT-5561) in the DECK2 and set to REC MODE.
4. Set 106KHz by adjusting T202.

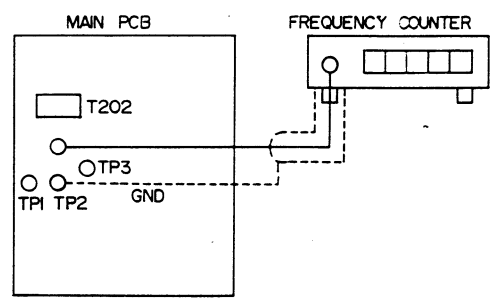



FIG8

## ADJUSTMENT OF RECORD BIAS

1. Connect the test equipment to the set shown as drawing 9.
2. Set the selector switch to TAPE.
3. Put the $CrO_2$ TAPE in the DECK2 and set to REC MODE.
4. Adjust the VR41("L" CH) VR42("R" CH) and make it 7mV.
5. At this time check whether it is NOR 4mV by changing TAPE.

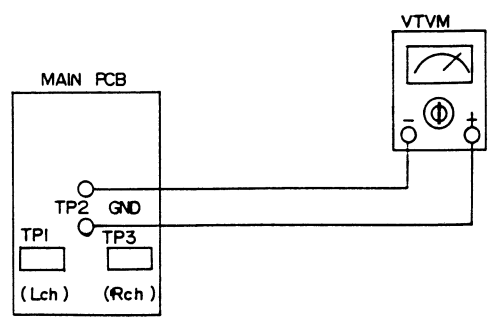


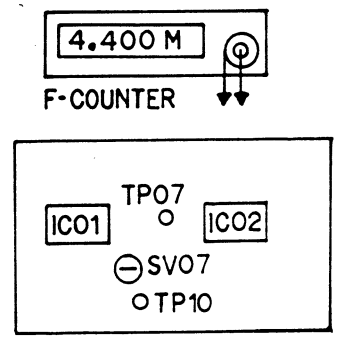

FIG9

# ADJUSTMENT OF CD PART

* After adjust, setting to center position.

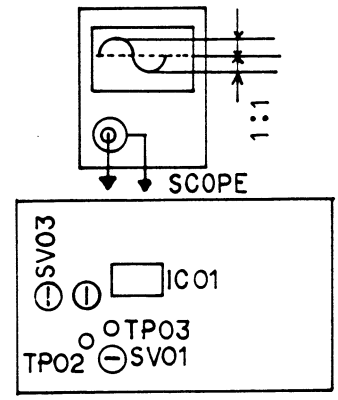
## 1. PLL ADJUSTMENT

- At the position to STOP.
- Connect the frequency counter (−) to TP 10.
- Connect the frequency counter (+) to TP 07.
- Adjust SV07 for 4.4 MHz ± 50(KHz)



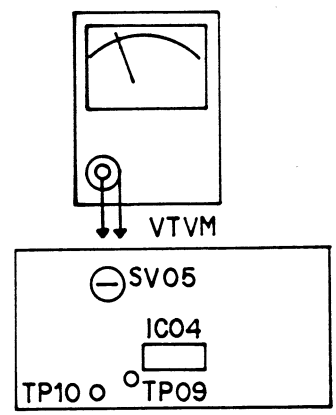

## 2. E/F BALANCE ADJUSTMENT

- At the position to PLAY.
- Turn to the SV02 MAX.
- Connect the oscilloscope (−) to TP02.
- Connect the oscilloscope (+) to TP03.
- Adjust SV01 so that center of TE signal displayed on the oscilloscope shall be 0(V) level.



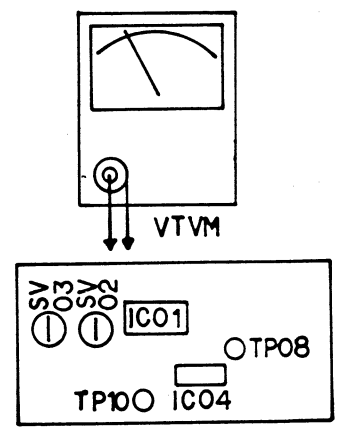

## 3. FOCUS GAIN ADJUSTMENT RETURN TO CENTER SV02

- At the position to PLAY.
- Connect the VTVM(−) to TP10.
- Connect the VTVM(+) to TP09.
- Adjust SV05 until monitor level at VTVM becomes 100mV±10mV.



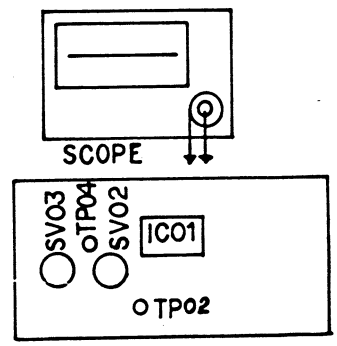

## 4. TRACKING GAIN ADJUSTMENT

- At the position to PLAY.
- Connect the VTVM (−) TP10.
- Connect the VTVM (+) TP08.
- Adjust SV02 until monitor level at VTVM becomes 120mV± 10mV.




## 5. TRACKING OFFSET ADJUSTMENT

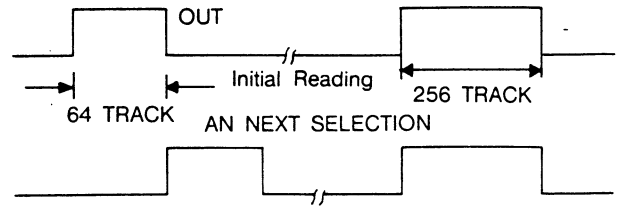
- At the position to STOP.
- Connect the oscilloscope (−) to TP02
- Connect the oscilloscope (+) to TP04.
- D.C level 0.1(V) to scope position.
- Adjust turn to SV03 0(V) level.



## ● SLIDE

(IC06)
FM + ㊶ OUTER DIRECTION

FM − ㊷ INNER DIRECTION




## ● FOCUS

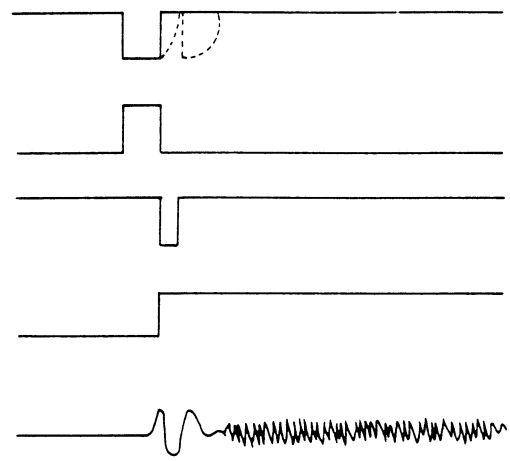
(IC02) ⑭ FST

⑬ FOCS

⑮ $\overline{\text{FZD}}$

(IC01) ㉗ DRF

㉛ FEAO

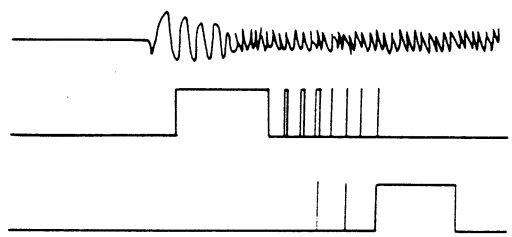


## ● DISC MOTOR (CLV)

(IC05) ⑩ FOCUS DRIVE

6 CLV+

3 CLV−



## ● TRACKING MODE(NORMAL)

(IC01) ㊻ TOFF

㊺ TGL

㊹ THLD

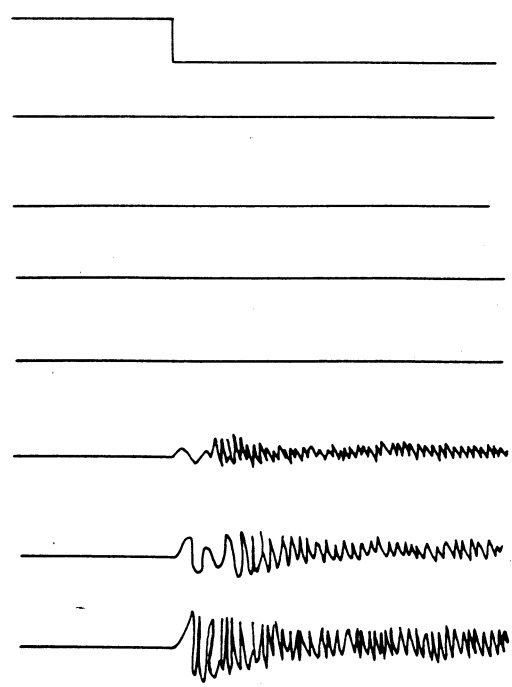
㊸ JP+

㊷ JP−

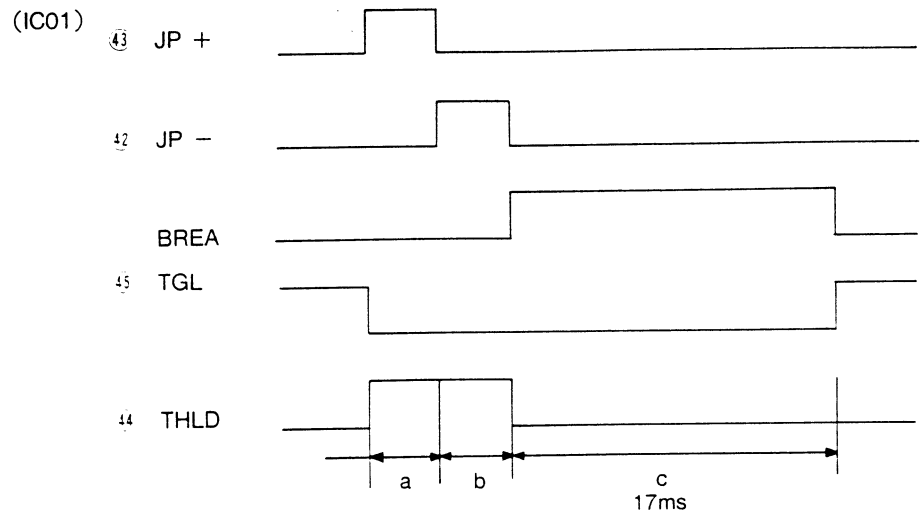
⑦ TEAO

⑮ TPAO

(IC04) ⑩ TRACKING DRIVE

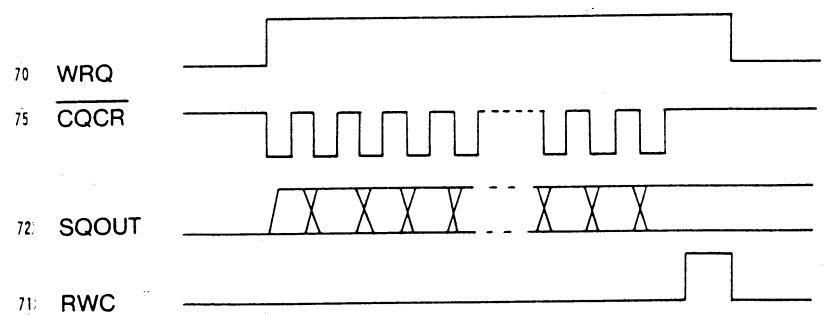


## ● TRACKING(At Selection)

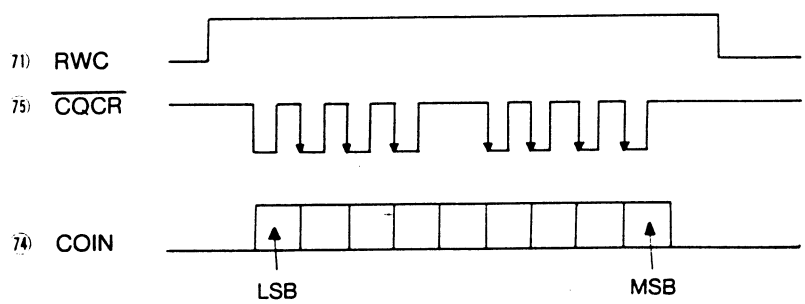



| COMMAND | a | b | c |
|---|---|---|---|
| 1 TRACK JUMP IN (OUT) #1 | 233μS | 233μS | 17mS |
| 1 TRACK JUMP IN (OUT) #2 | 0.5 TRACK JUMP PERIOD | 233μS | 17mS |
| 4 TRACK JUMP IN (OUT) | 2 PERIOD | 466μS | 17mS |
| 16 TRACK JUMP IN (OUT) | 9 PERIOD | 7 TRACK JUMP | 17mS |
| 64 TRACK JUMP IN (OUT) | 36 PERIOD | 28 TRACK JUMP | 17mS |
| 256 TRACK JUMP IN (OUT) | 256 TRACK PASSAGE THLD→"H" STATE | | |

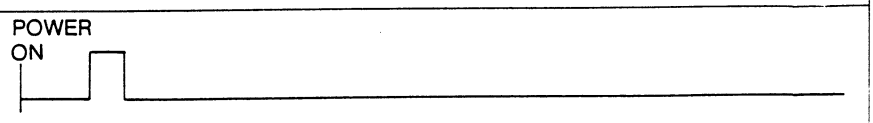
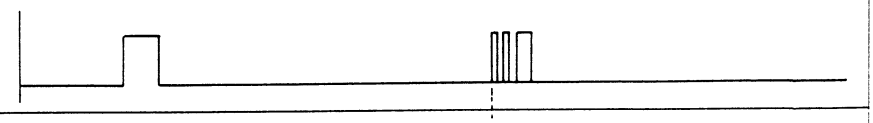
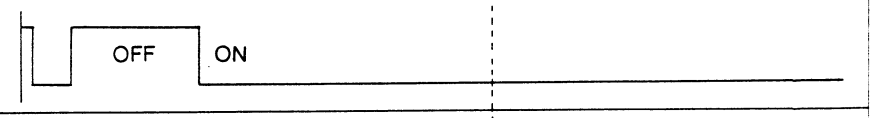
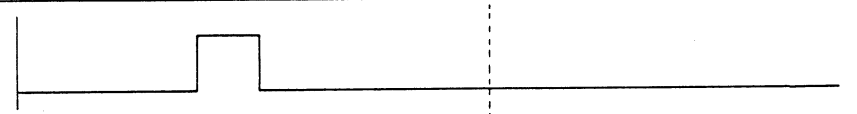
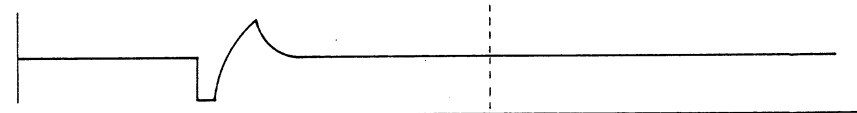
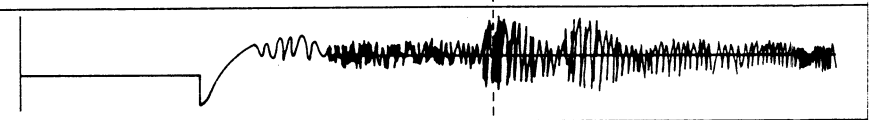
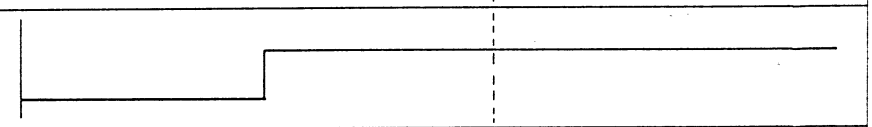
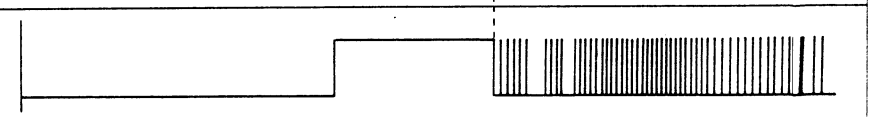
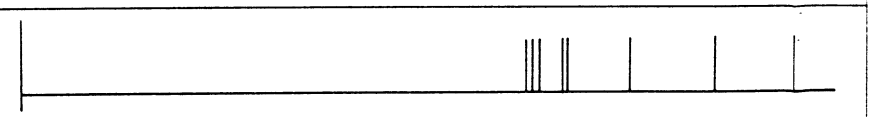
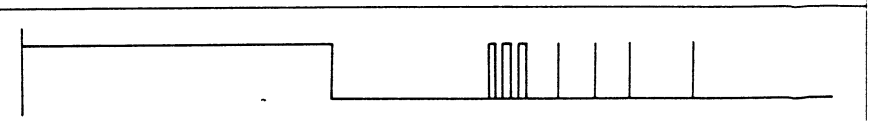
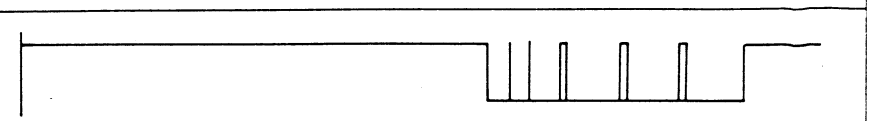
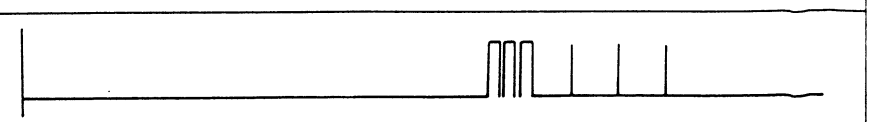
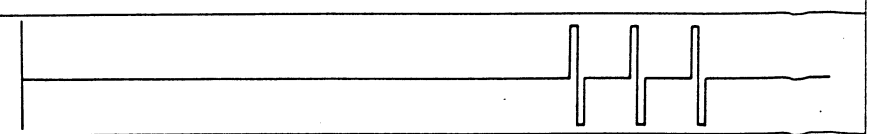
## ● SUB CODE OUTPUT




## ● SUB COMMAND INPUT



• **After power on each state until normal play(with disc).**

| IC NO. | SIGNAL | PIN NO. | WAVEFORM |
|---|---|---|---|
| IC06 | FM+ | ㊷ |   |
| | FM− | ㊶ |  |
| | $\overline{\text{LASER}}$ | ㉟ |   |
| IC02 | FOCS | ⑬ |  |
| | FST | ⑭ |  |
| IC01 | FDO | ㉒ |  |
| IC01 | DRF | ㊵ |  |
| IC02 | CLV+ | ⑪ |  |
| | CLV− | ⑫ |  |
| | T.OFF | ⑲ |  |
| | TGL | ⑳ |  |
| | THLD | ㉑ |  |
| IC01 | JP0 | ⑲ |  |

# PIN FUNCTION OF IC1201 & IC1301

## 1. IC1201 (LC7860, Digital Signal Processor)

| Pin No. | Pin name | I/O | Function |
|---|---|---|---|
| 1 | TEST1 | I | For LSI test. This is disconnected in normal operations. |
| 2 | $A_O$ | O | Compose VCO with an LC resonance circuit connected between $A_I$ and $A_O$. (8.6436 MHz) $P_{DD}$ is a phase output with the EFM signal, and set so that frequency rises in the + mode. |
| 3 | $A_I$ | I | |
| 4 | $P_{DO}$ | O | |
| 5 | $V_{SS}$ | — | GND |
| 6 | EFMO | O | Input the HF signals of 1 to 2 $V_{PP}$ to EFMIN. EFM signals each having an inversed phase to the other are output from EFMO and $\overline{EFMO}$ through the amplitude limiter. These signals are used for slice level control. |
| 7 | $\overline{EFMO}$ | O | |
| 8 | EFMIN | I | |
| 9 | TEST2 | I | For LSI test. This is disconnected in normal operations. |
| 10 | $V_{DD}$ | — | +5V |
| 11 | CLV+ | O | For disc motor control output. |
| 12 | CLV− | O | |
| 13 | FOCS | O | Turn off the focus servo while FOCS is set to H. FST lowers the lense when in the L state, and rises it gradually when in the H state. When $\overline{FZD}$ is generated, FOCS is reset, retrieving the focus. |
| 14 | FST | O | |
| 15 | $\overline{FZD}$ | I | |
| 16 | HFL | I | A kick pulse, JP +, or JP − is generated according to a track command which specifies the number of tracks to be jumped(1, 4, 16, or 64). |
| 17 | TES | I | |
| 18 | FSEQ/ PCK | O | 4.4MHz PCK monitor terminal. This is set to H when SYNC detected from the EFM signal coincides with SYNC on the counter while DEMO is set to H. |
| 19 | TOFF | O | A kick pulse, JP +, or JP − is generated according to a track command which specifies the number of tracks to be jumped(1, 4, 16, or 64). |
| 20 | TGL | O | |
| 21 | THLD | O | |
| 22 | JP+ | O | |
| 23 | JP− | O | |
| 24 | DEMO | I | This pin is used for adjustment of the set(sound adjustment). |

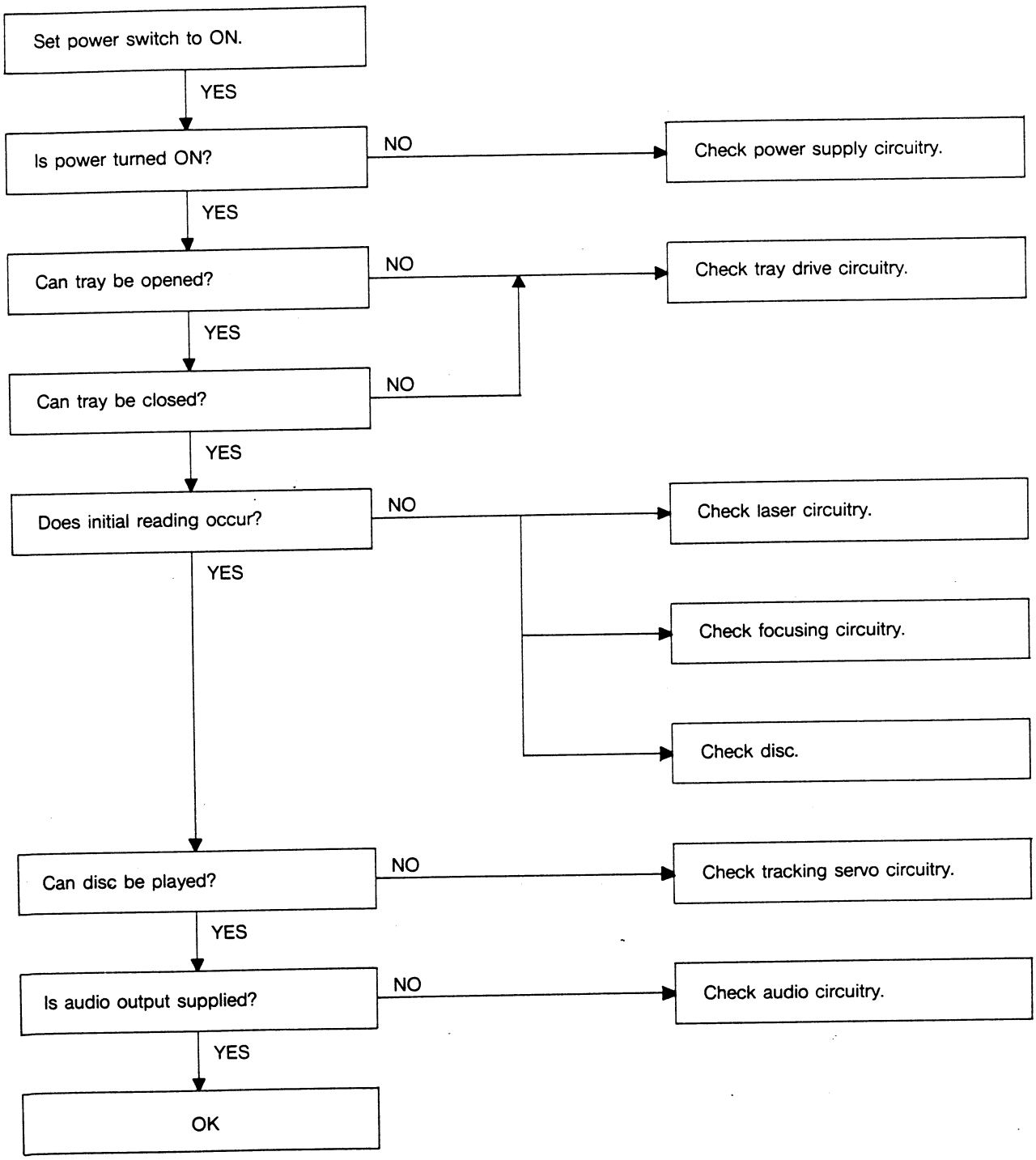
| Pin No. | Pin name | I/O | Function |
|---|---|---|---|
| 25 | TEST3 | I | For LSI test. This is disconnected in normal operations. |
| 26 | EMPH | O | Di-emphasis is needed when this pin is set to H. |
| 27 | DFOFF | I | Digital filter ON/OFF switch. When this pin is set to H, the digital filter function is diactivated. |
| 28 | DSPOFF | I | For LSI test. This is set to L in normal operation. |
| 29 | SMP2 | O | Signal output to DAC, L/R switching or sample hold signal. |
| 30 | LRCLK | O | |
| 31 | $V_{DD}$ | — | +5V |
| 32 | SMP3 | O | Signal output to DAC, L/R switching or sample hold signal. |
| 33 | SMP1 | O | |
| 34 | DFOUT | O | |
| 35 | DACLK | O | Signal output to DAC, L/R switching or sample hold signal. |
| 36 | DFIN | I/O | Output signals corresponding to CD ROM. Synchronous signals corresponding to CD ROM. |
| 37 | LRSY | O | |
| 38 | MSBF | I | Signal output to DAC, L/R switching or sample hold signal. |
| 39 | CK2 | O | 2.1609 MHz |
| 40 | AD10 | O | RAM address output |
| 41 | OE | O | Output mode when WE=L, and input mode when WE=H, OE is used to control input and output. |
| 42 | WE | O | |
| 43 | AD9 | O | RAM address output |
| 44 | AD8 | O | |
| 45 | AD7 | O | |
| 46 | AD6 | O | |
| 47 | AD5 | O | |
| 48 | AD4 | O | |
| 49 | AD3 | O | RAM address output |
| 50 | AD2 | O | |
| 51 | AD1 | O | |
| 52 | AD0 | O | |

| Pin No. | Pin name | I/O | Function |
|---|---|---|---|
| 53 | DB7 | I/O | DB7 to DB0 : Connect to the RAM data pins. |
| 54 | DB6 | I/O | |
| 55 | DB5 | I/O | |
| 56 | $V_{SS}$ | — | GND |
| 57 | DB4 | I/O | DB7 to DB0 : Connect to the RAM data pins. |
| 58 | DB3 | I/O | |
| 59 | DB2 | I/O | |
| 60 | DB1 | I/O | |
| 61 | DB0 | I/O | |
| 62 | TEST4 | I | For LSI test. This is disconnected in normal operations. |
| 63 | TEST5 | I | |
| 64 | OFF | I | Corresponding to CD ROM. When this pin is set to H, interpolation and previous value holding are not performed. |
| 65 | EFLG | O | C1 and C2 (single and double) correction monitoring. |
| 66 | PW | O | PWSY finds a change in SYNC, combined sub and main, from H to L, externally, and sends clocks to SBCK eight times to read subcode P,Q, R, S, T, U, V, or W. |
| 67 | PWSY | O | |
| 68 | SBCK | I | |
| 69 | FSX | O | 7.35 KHz synchronous signal output. |
| 70 | WRQ | O | WRQ is set to H when the subcode Q data is passed the CR check. This is detected from outside, and $\overline{CQCK}$ is transmitted to read data. If data is to be read with the LSB first, set M/L to L. Set RWC to H using a microcomputer, and send a command data synchronized with $\overline{CQCK}$. |
| 71 | RWC | I | |
| 72 | SQOUT | O | |
| 73 | $V_{DD}$ | — | +5V |
| 74 | COIN | I | |
| 75 | $\overline{CQCK}$ | I | |
| 76 | RES | I | Set to L first when the power is turned on. |
| 77 | H/L | I | |
| 78 | $V_{SS}$ | — | GND |
| 79 | $X_{IN}$ | I | 8.6436 MHz crystal oscillator connection pins. |
| 80 | $X_{OUT}$ | O | |

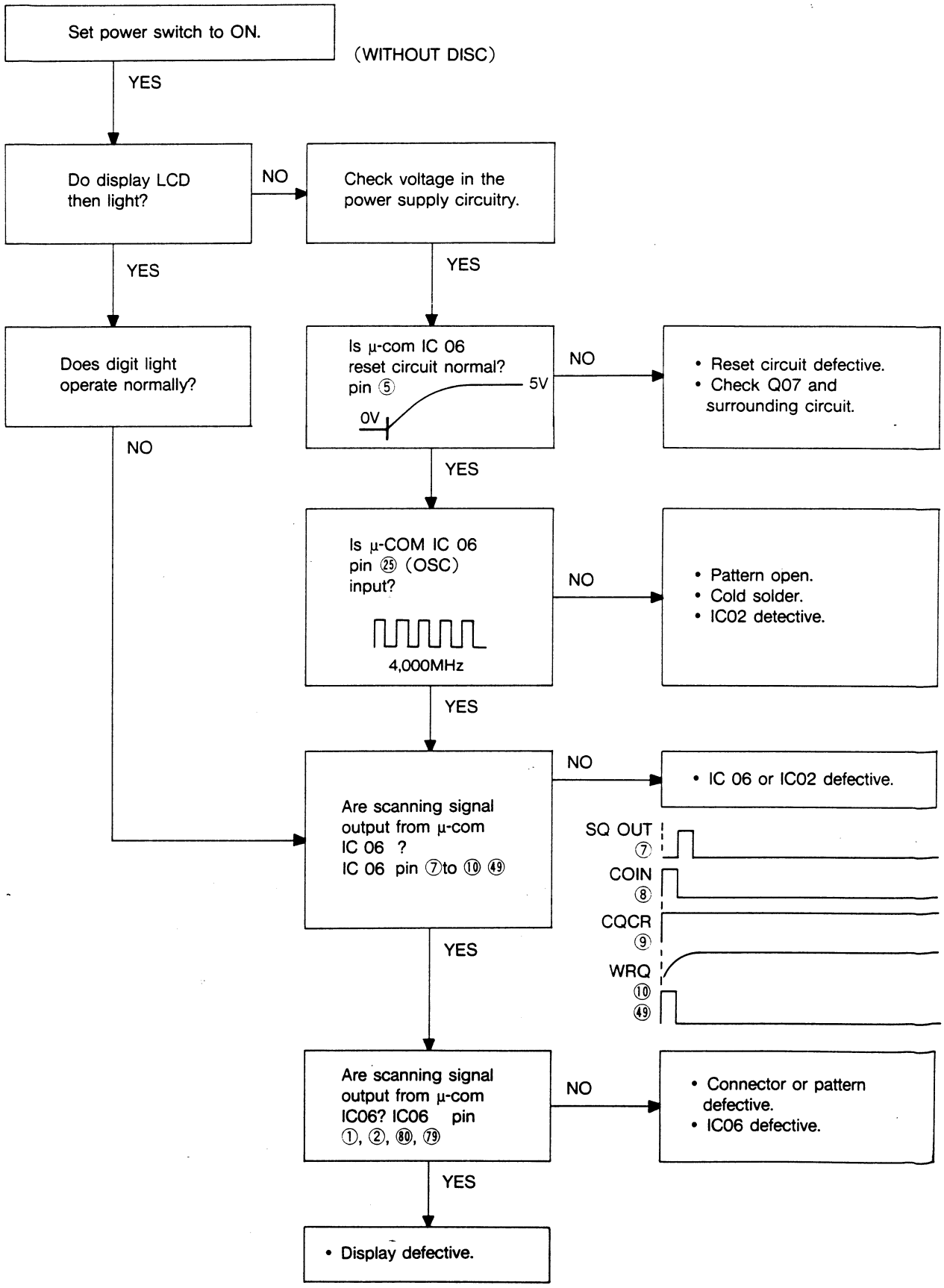
## 2. IC1301 (LC788M, D/A Converter)

| Pin No. | Name | Description |
|---|---|---|
| 1 | CH10UT | CH10UT output pin(R-ch output for LC7860) |
| 2 | VrefH | Reference voltage "H" input pin |
| 3 | NC | No connection |
| 4 | VDD | +5V power supply voltage |
| 5 | WCLK2 | Word clock input #2<br>When IF is "L" level and WCLK2 goes LOW, an internal signal is generated that latches the data on the left digital audio channel.<br>When IF is "H" level, WCLK2 must be "L" level. |
| 6 | LRCK | Left-right clock input.<br>When "H" level, shows that the digital audio input is on the left-channel ; when "L" level, on the right-channel. |
| 7 | WCLK1 | Word clock input #1<br>When IF is "L" level and WCLK1 goes "L" level, an internal signal is generated that latches the data on the right digital audio channel.<br>When IF is "H" level and WCLK1 goes "L" level, an internal signal is generated that latches the data on both the right and left digital audio channels. |
| 8 | DATA | Digital audio data input.<br>When IF is "L" level, data is input in bit-serial format from the least significant bit(LSB).<br>When IF is "L" level, data is input bit-serial format from the most significant bit(MSB). |
| 9 | BCLK | Bit clock input pin.<br>Bit clock for reading in digital audio data in bit-serial format and the clock for the PWM DAC. |
| 10 | $V_{DD}$ | +5V power supply voltage. |
| 11 | TSTOUT | Test output, normally open. |
| 12 | TST1 | Test input, normally grounded. |
| 13 | TST2 | Test input, normally grounded. |
| 14 | IF | Interface toggle.<br>Digital audio data is input LSB first when "L" level, and MSB when "H" level. |
| 15 | GND | Ground |
| 16 | VrefL | Reference voltage "L" level input. |
| 17 | GND | Ground |
| 18&19 | NC | No connection |
| 20 | CH20UT | CH20UT output pin (L-ch output for LC7880) |

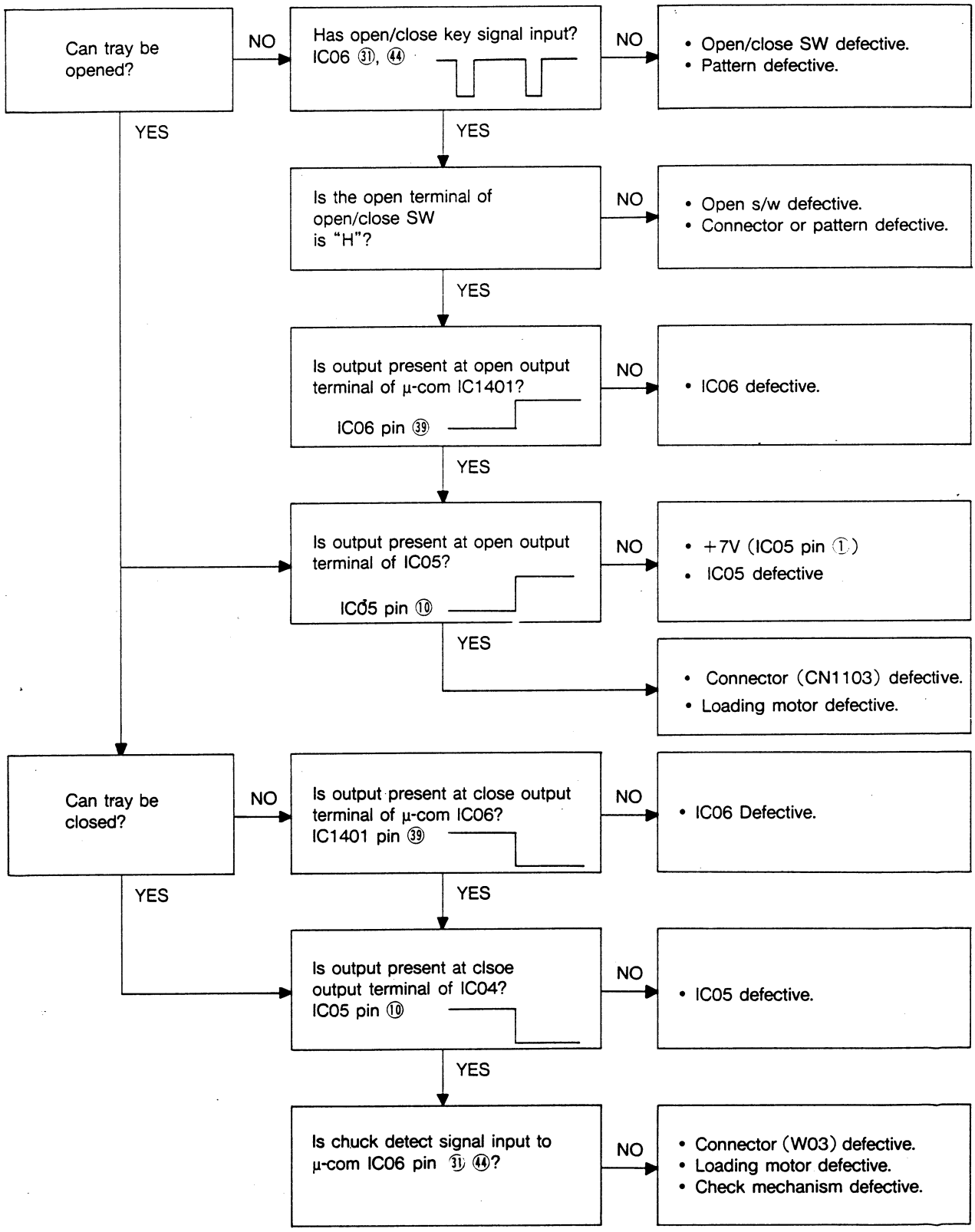
# TROUBLESHOOTING GUIDE (FOR CDP)



**(1) If display LCD lighting is not normal**

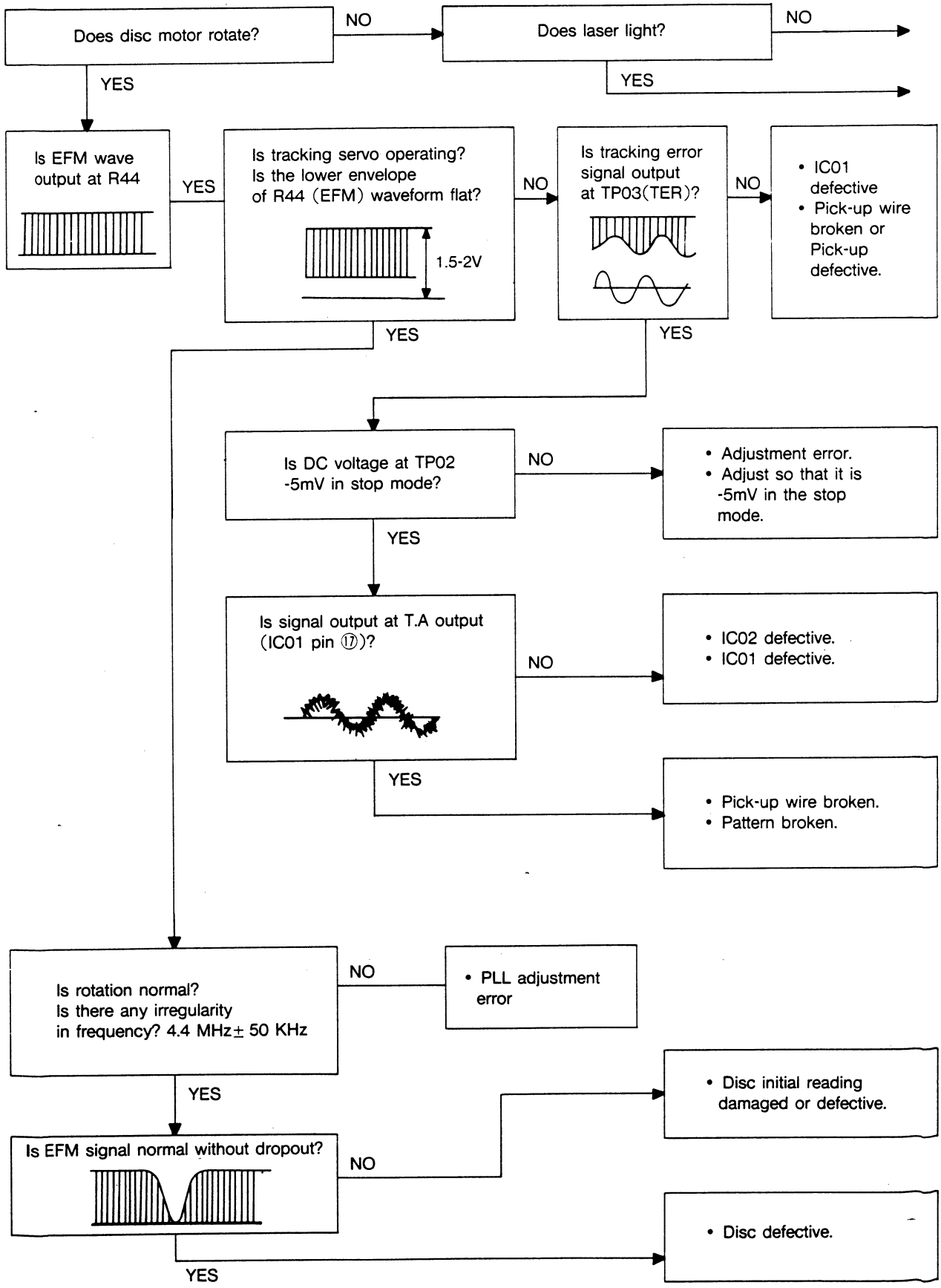


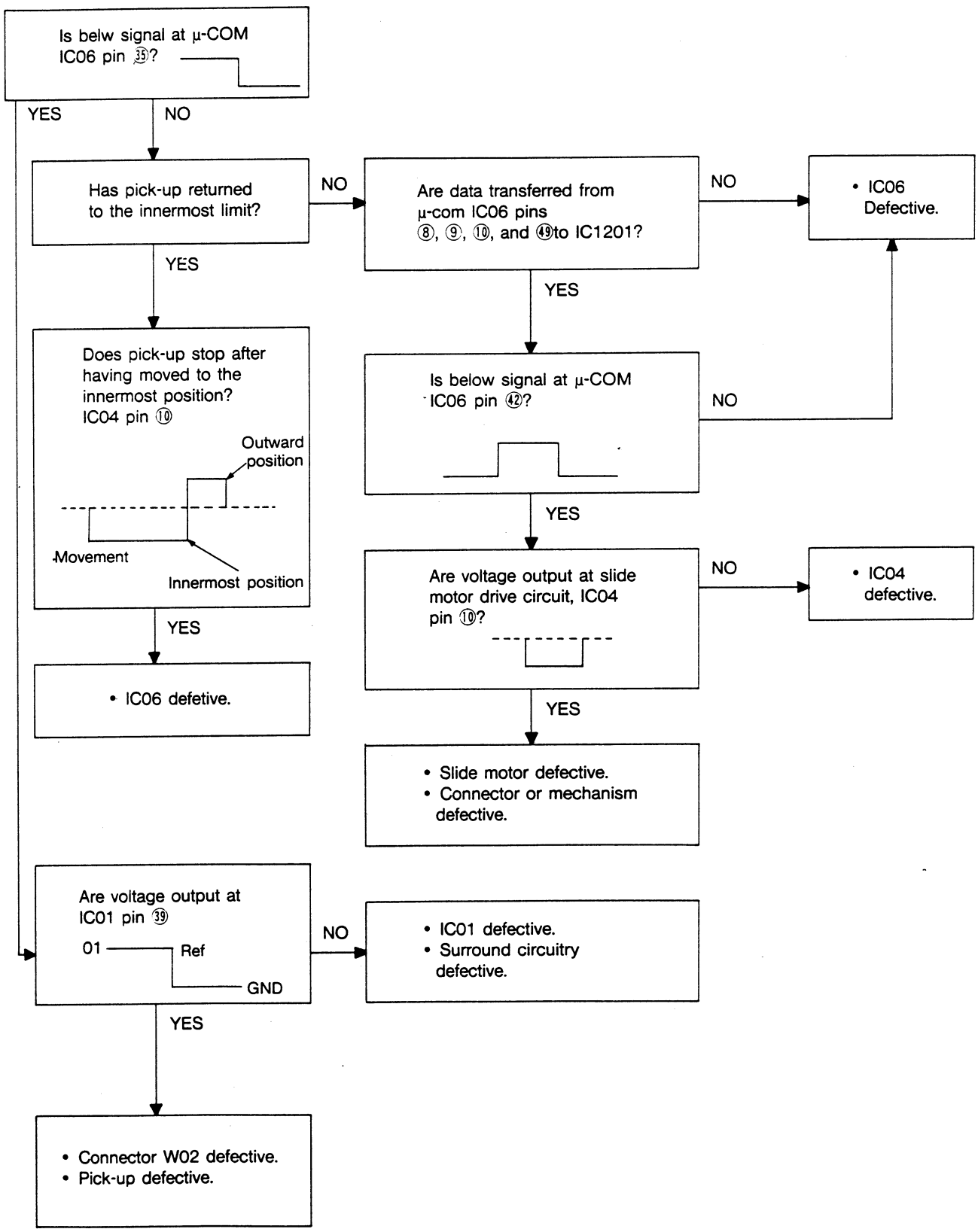
**(2) If tray operation is not normal**



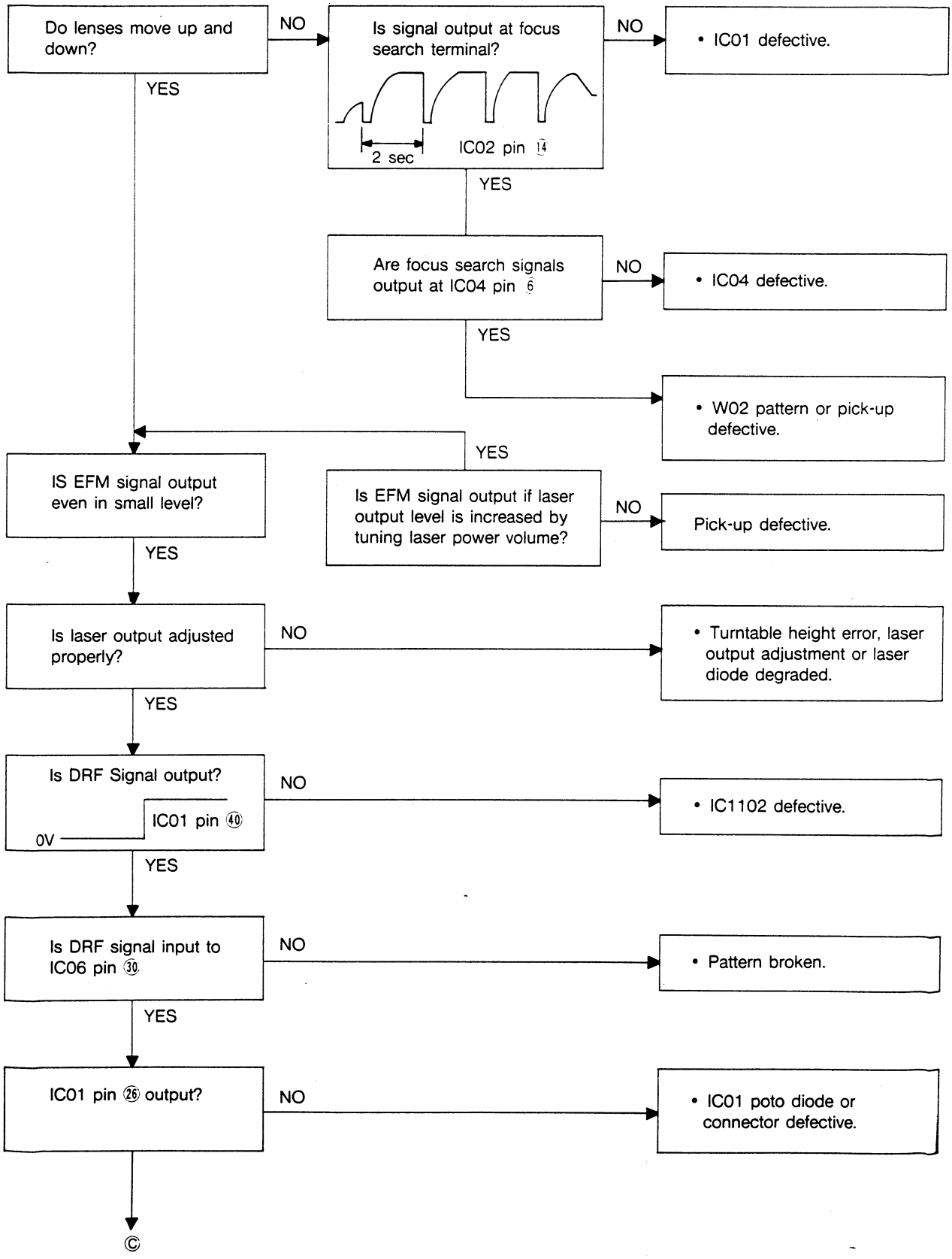

• If tray opens(closes) immediately after it was closed (opened), it is connecting W03, assembling cabinet mechanism, connector or leaf SW or pattern defective.

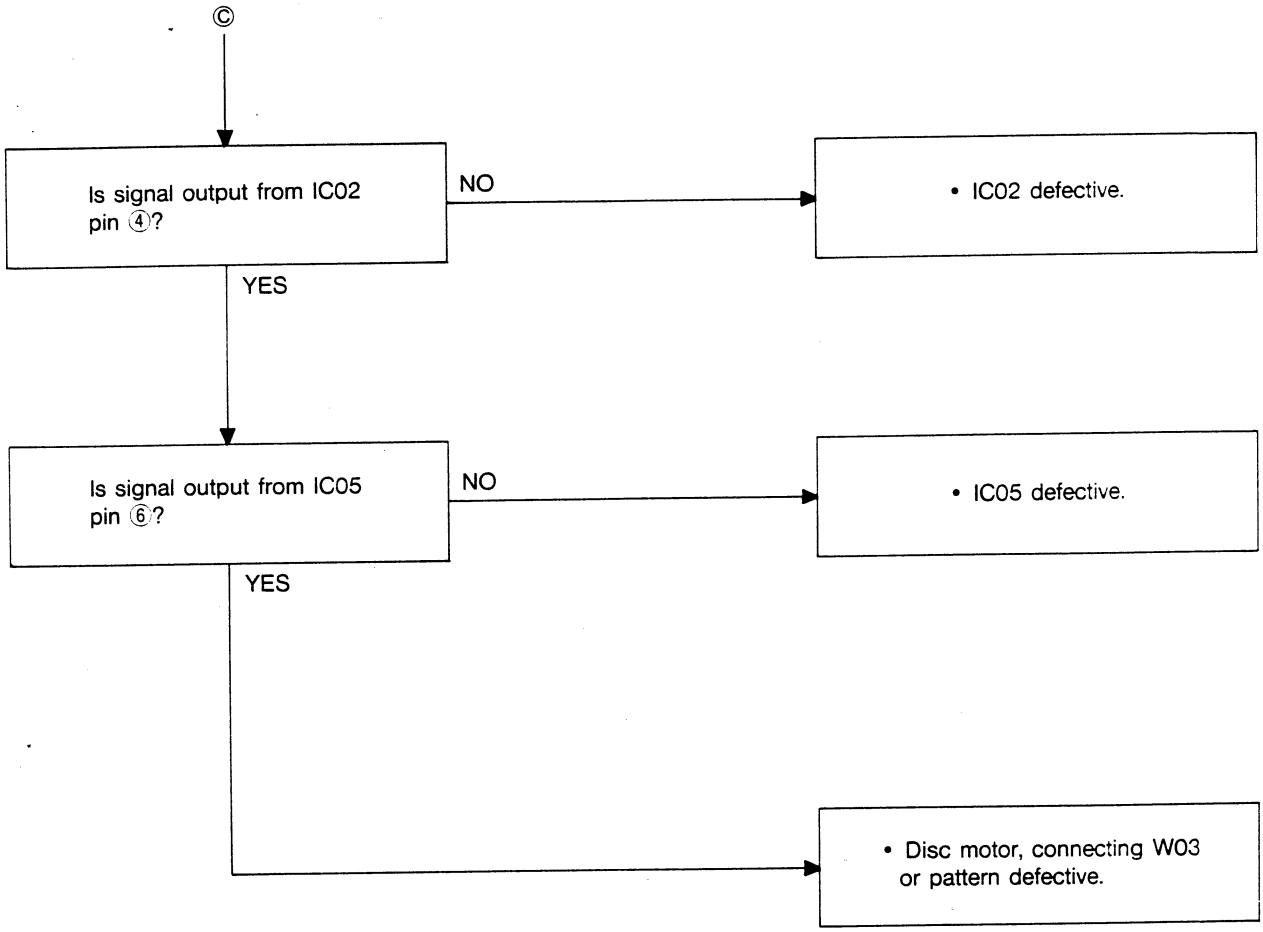
**(3) If intial reading is not carried out**



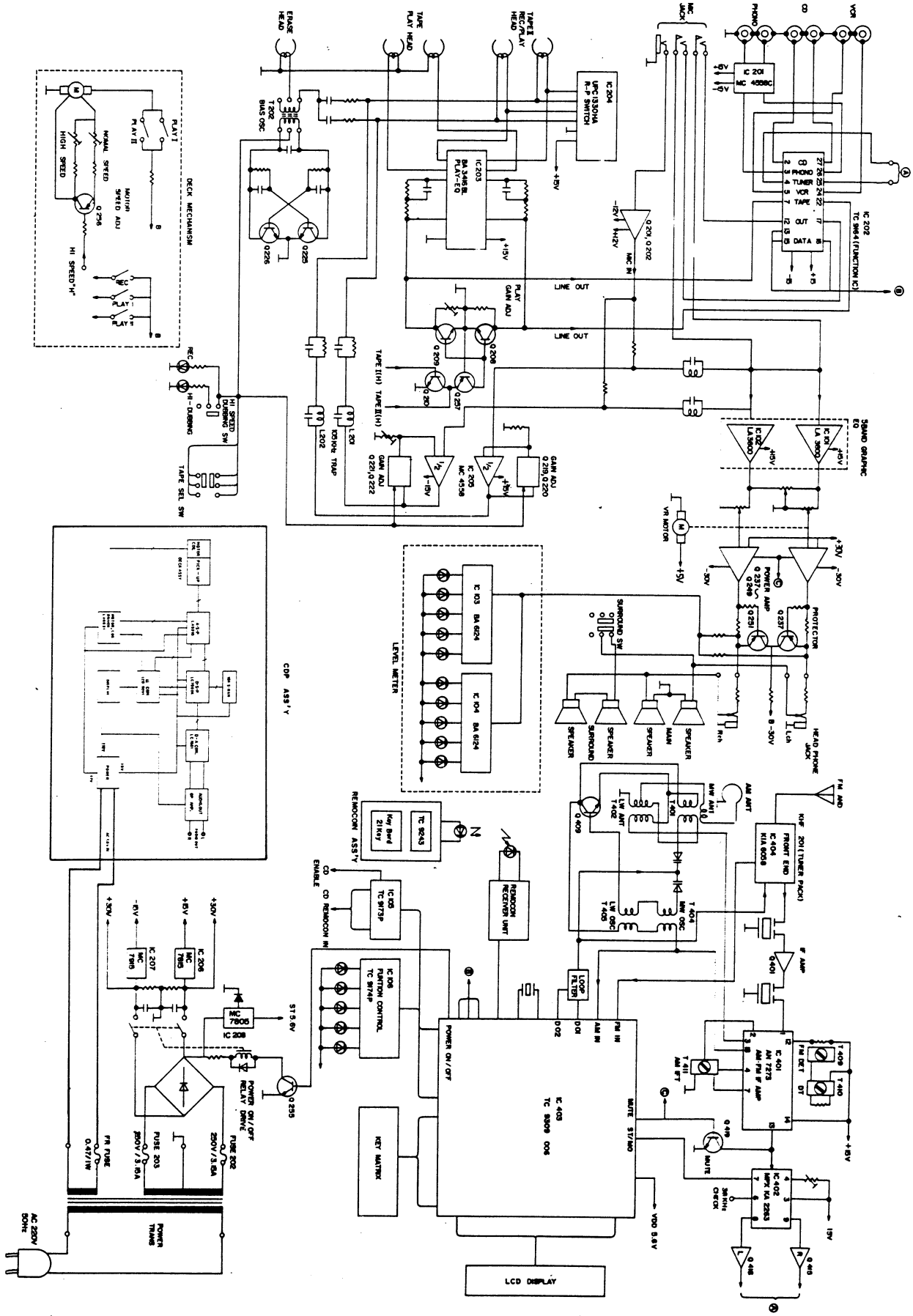

Is belw signal at μ-COM IC06 pin ㉟?
YES
NO
Has pick-up returned to the innermost limit?
NO
Are data transferred from μ-com IC06 pins ⑧, ⑨, ⑩, and ㊾to IC1201?
NO
• IC06 Defective.
YES
YES
Does pick-up stop after having moved to the innermost position? IC04 pin ⑩
Outward position
Movement
Innermost position
Is below signal at μ-COM IC06 pin ㊷?
NO
YES
YES
• IC06 defetive.
Are voltage output at slide motor drive circuit, IC04 pin ⑩?
NO
• IC04 defective.
YES
• Slide motor defective.
• Connector or mechanism defective.
Are voltage output at IC01 pin ㊴
01
Ref
GND
NO
• IC01 defective.
• Surround circuitry defective.
YES
• Connector W02 defective.
• Pick-up defective.

**When laser lights**



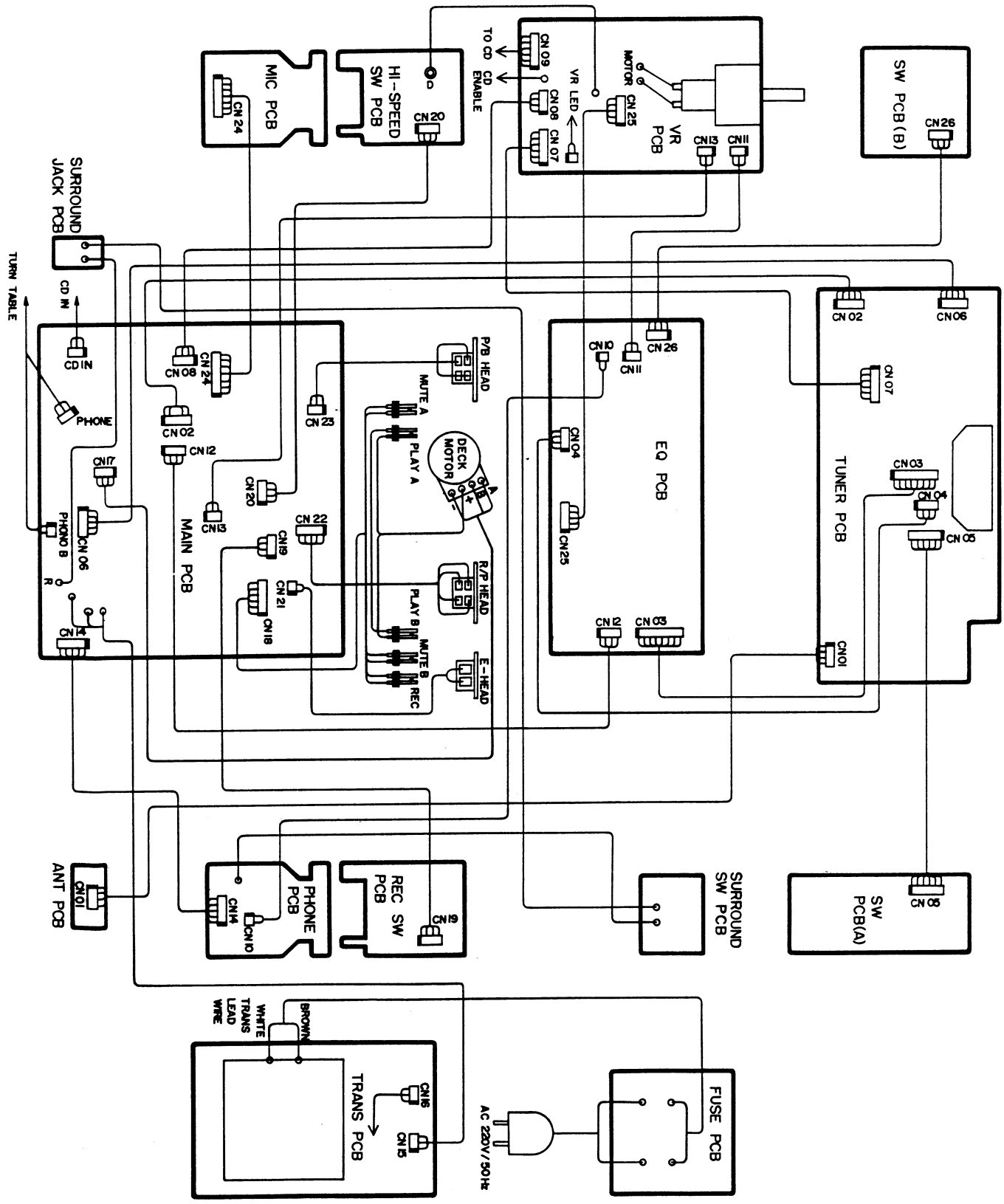

©
Is signal output from IC02 pin ④?
NO
• IC02 defective.
YES
Is signal output from IC05 pin ⑥?
NO
• IC05 defective.
YES
• Disc motor, connecting W03 or pattern defective.

# BLOCK DIAGRAM

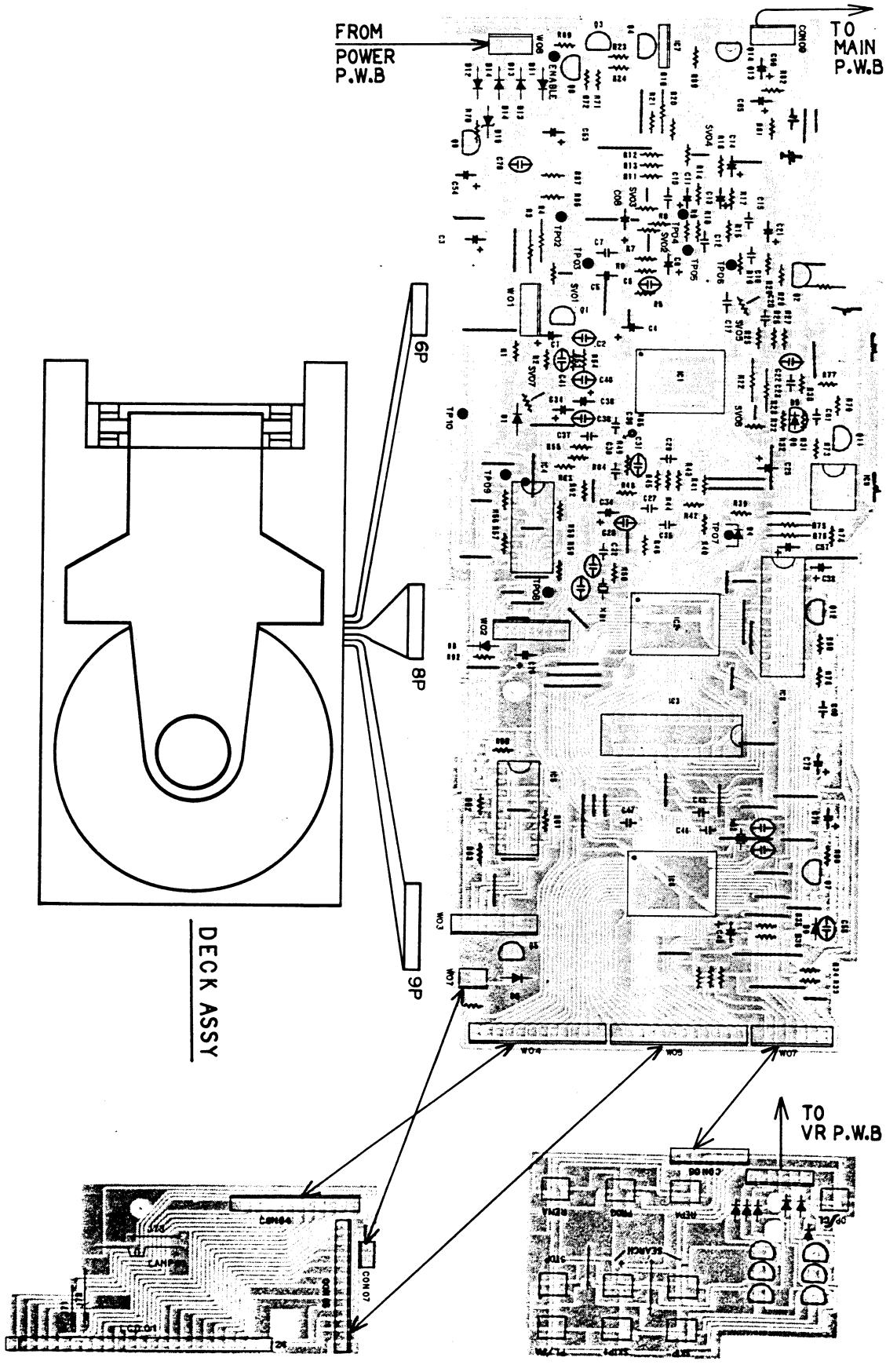


# WIRING DIAGRAM

## MAIN

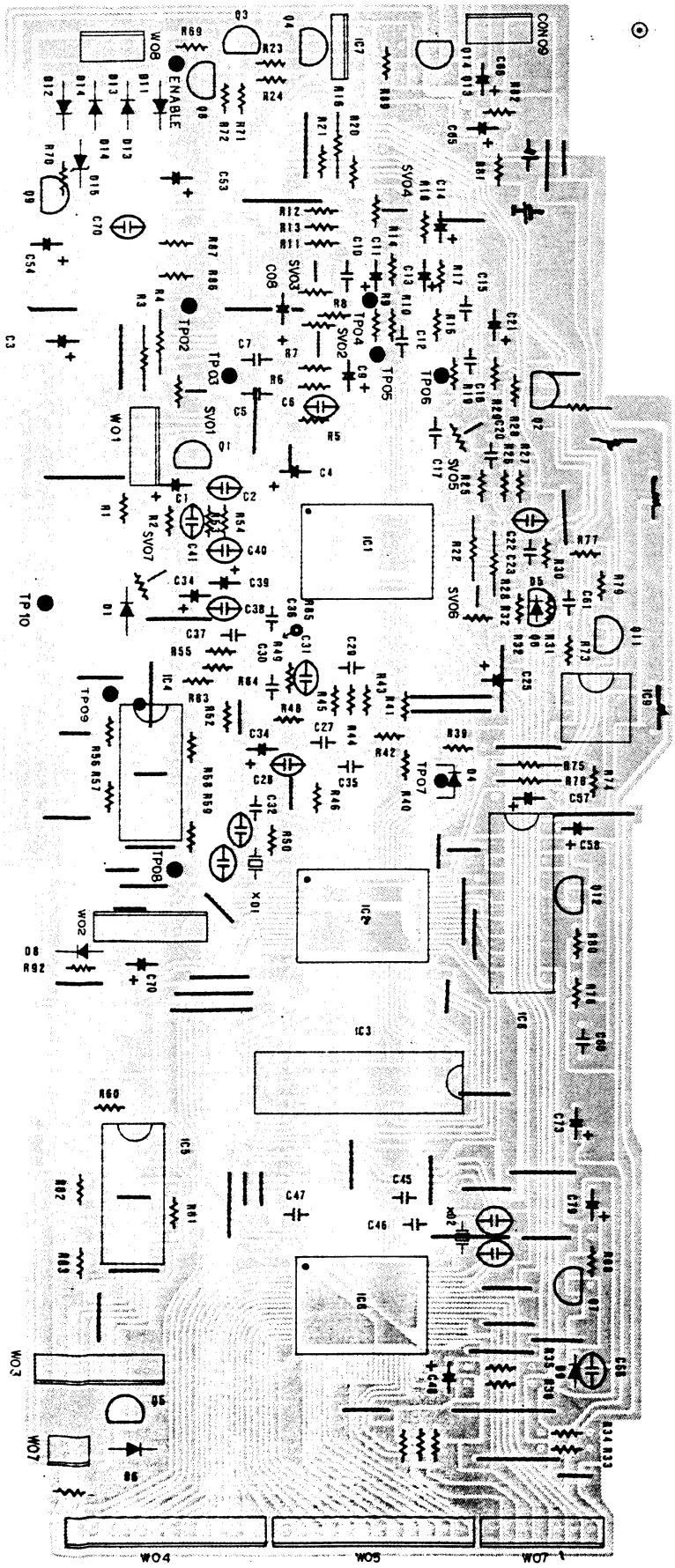


## CDP

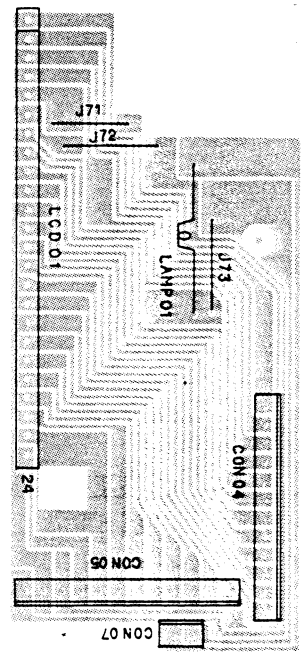


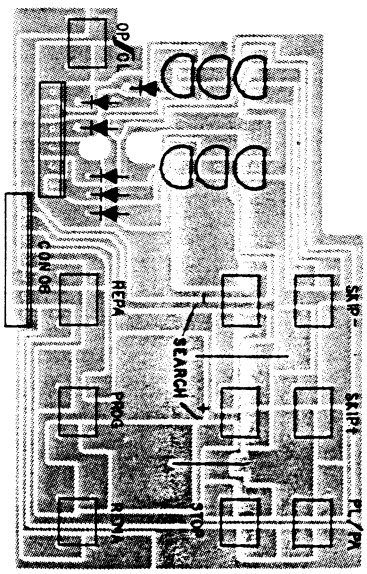
# PCB LAYOUT

## CD MAIN PCB

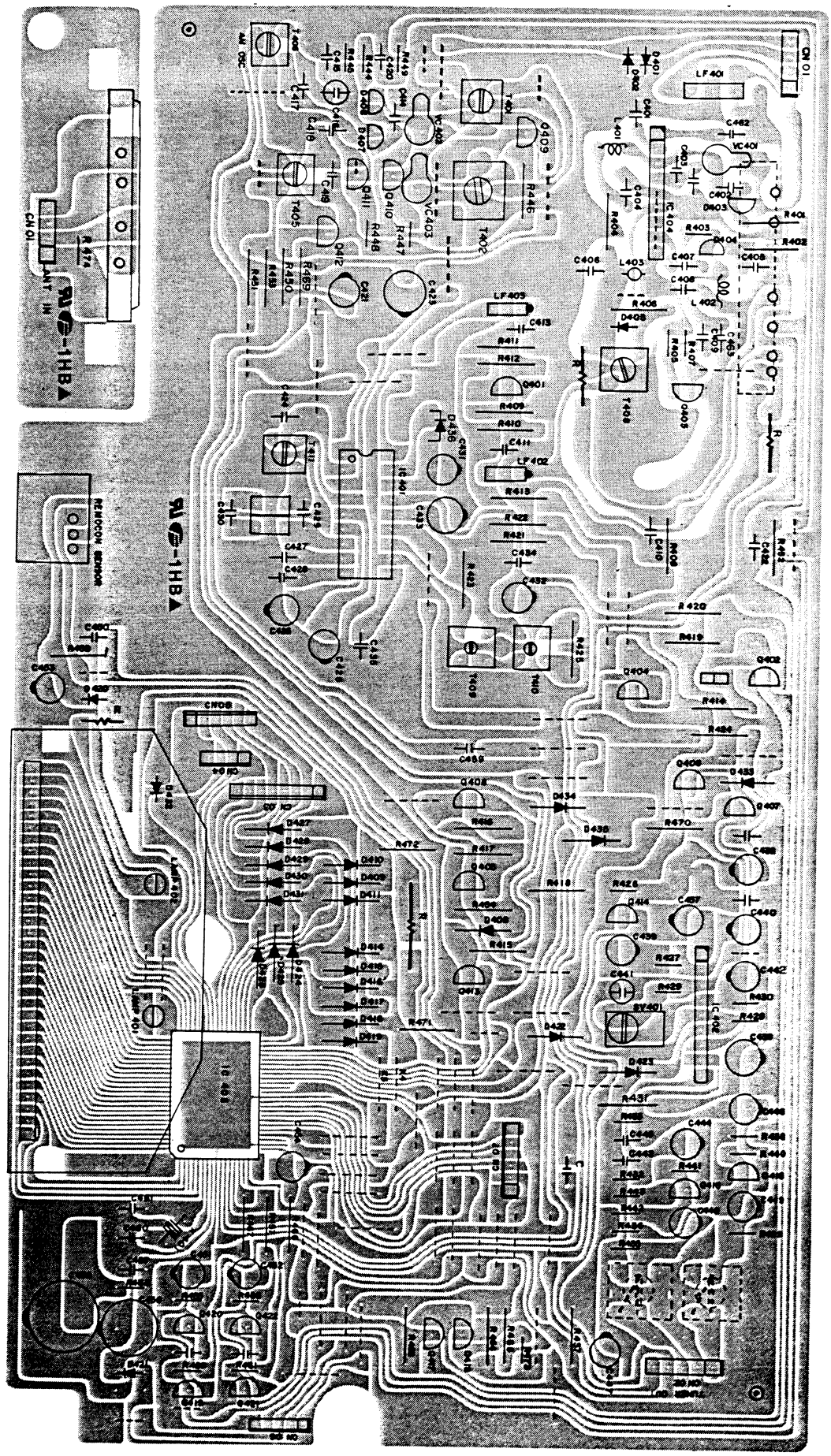



## CD LCD PCB

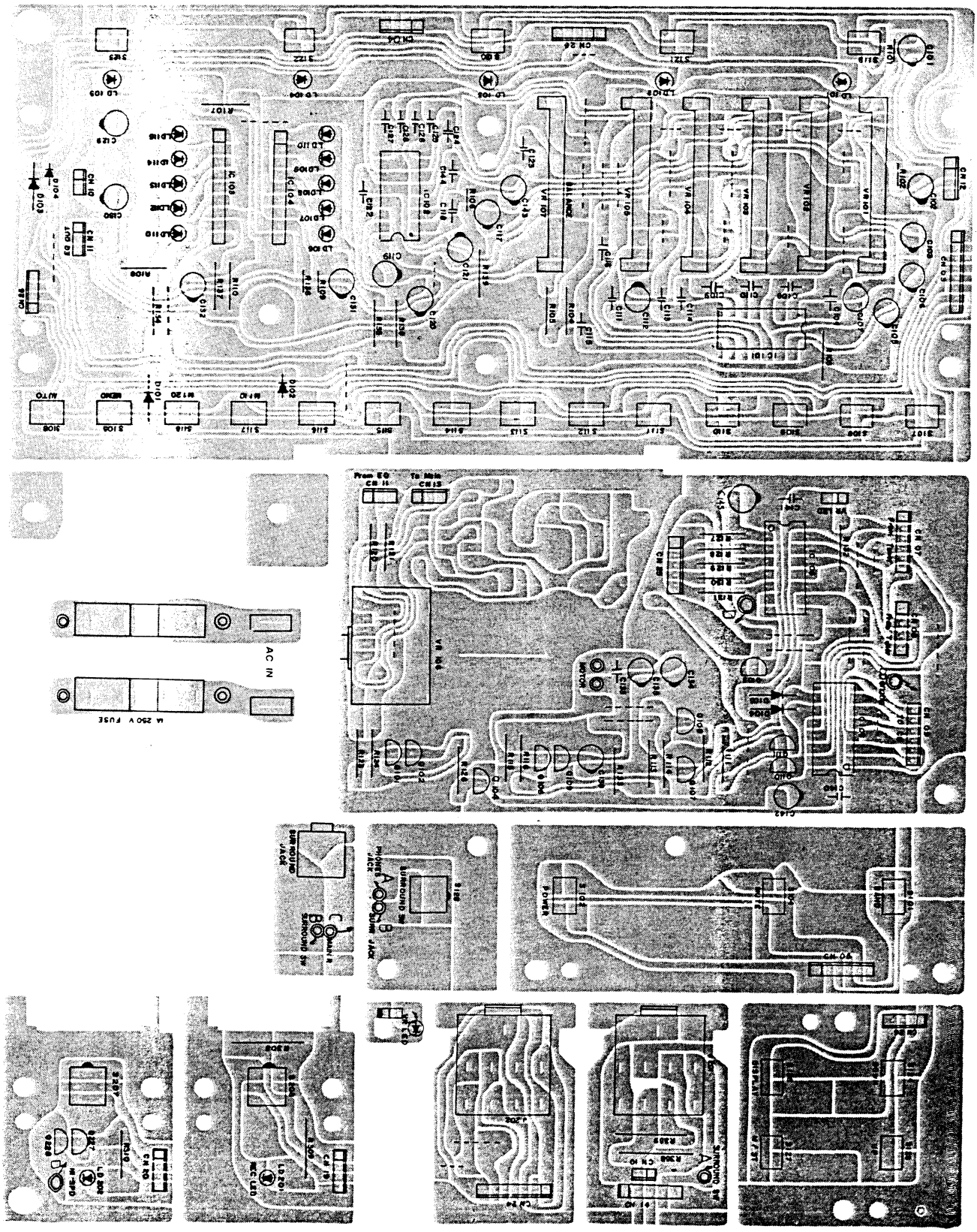


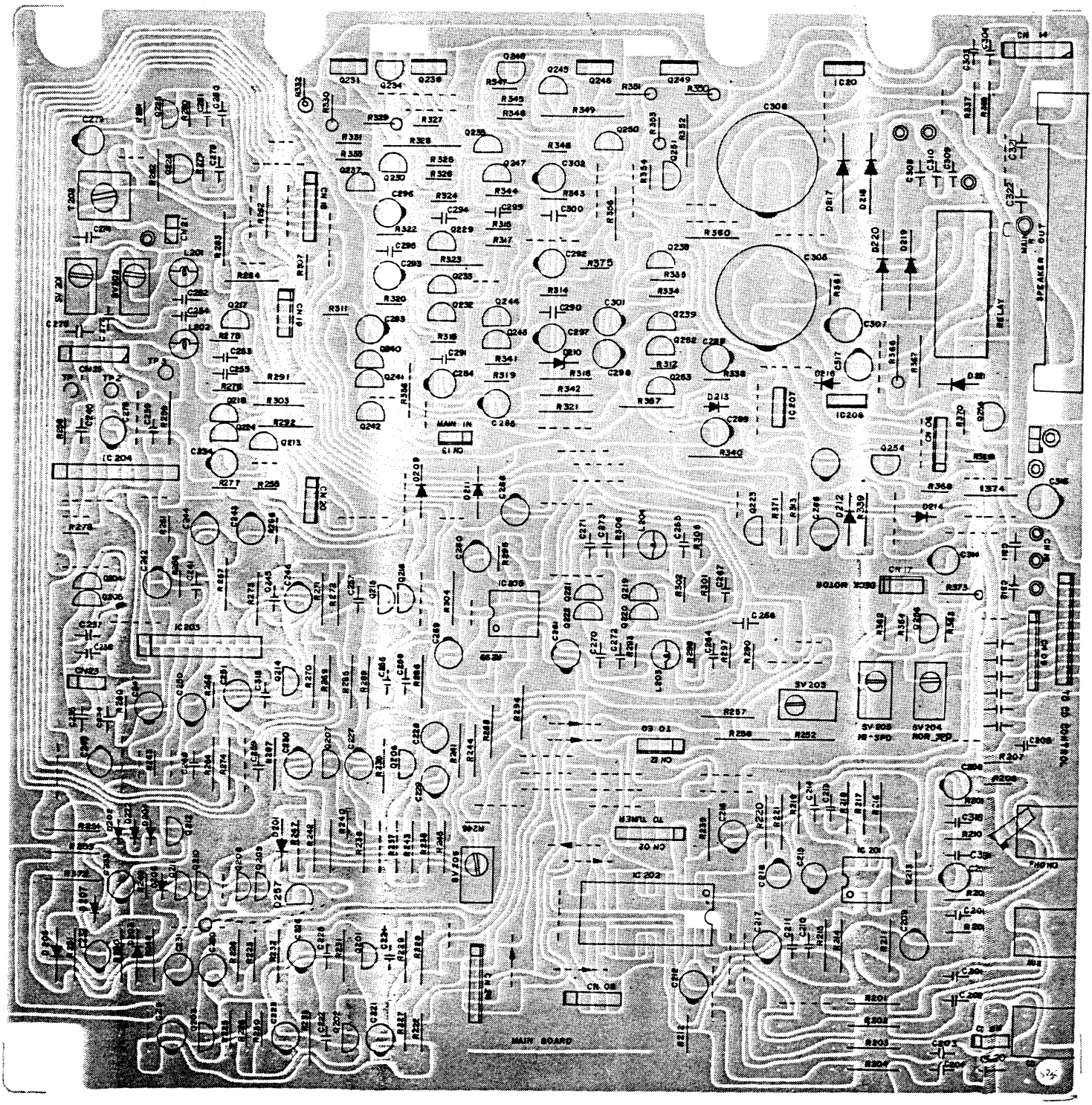
## TUNER PCB



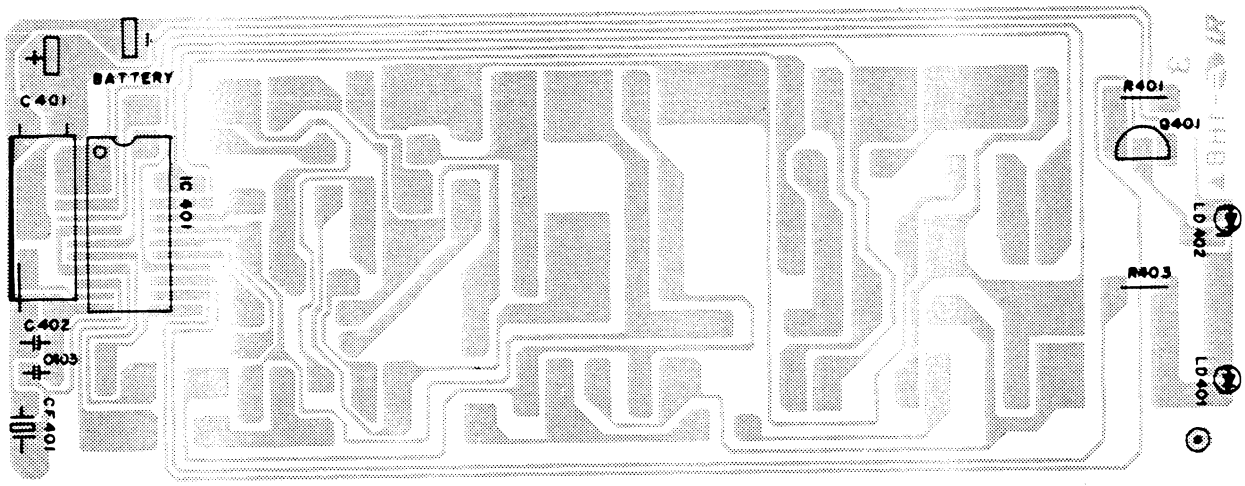
## SUB PCB



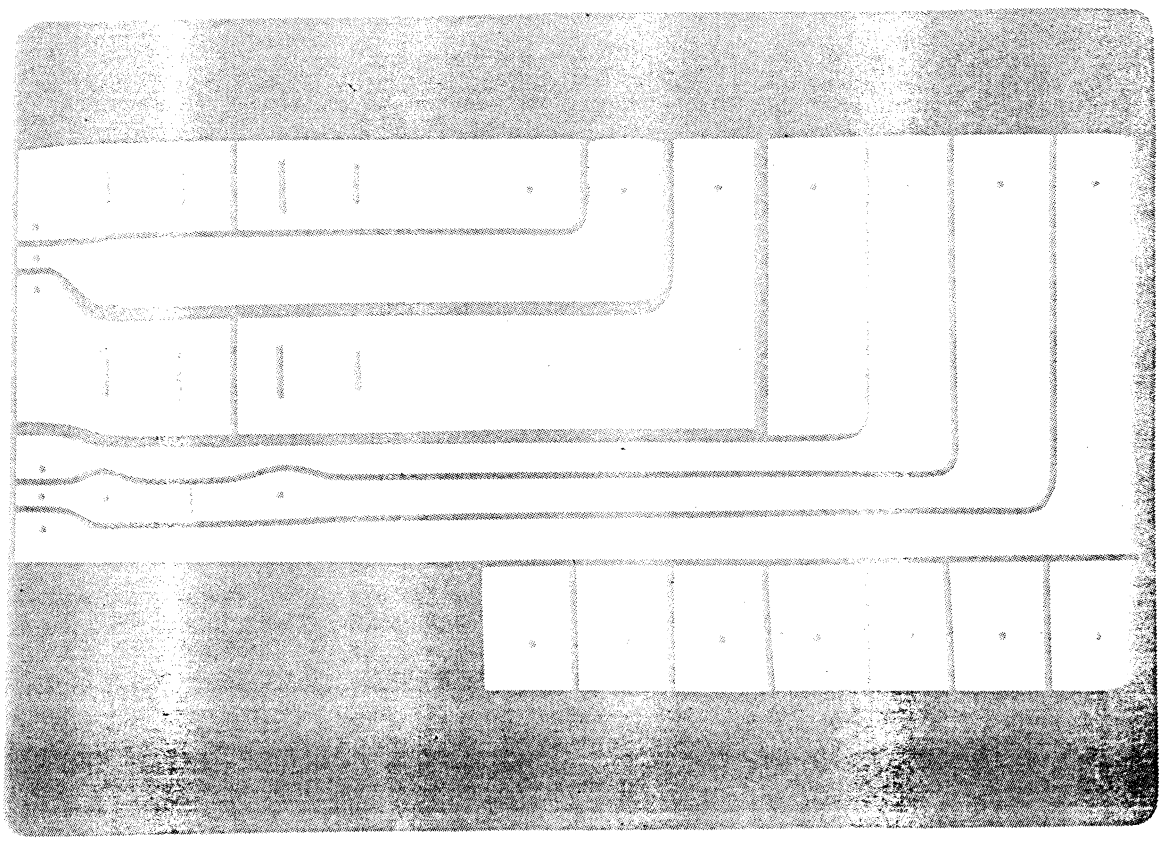
## MAIN PCB



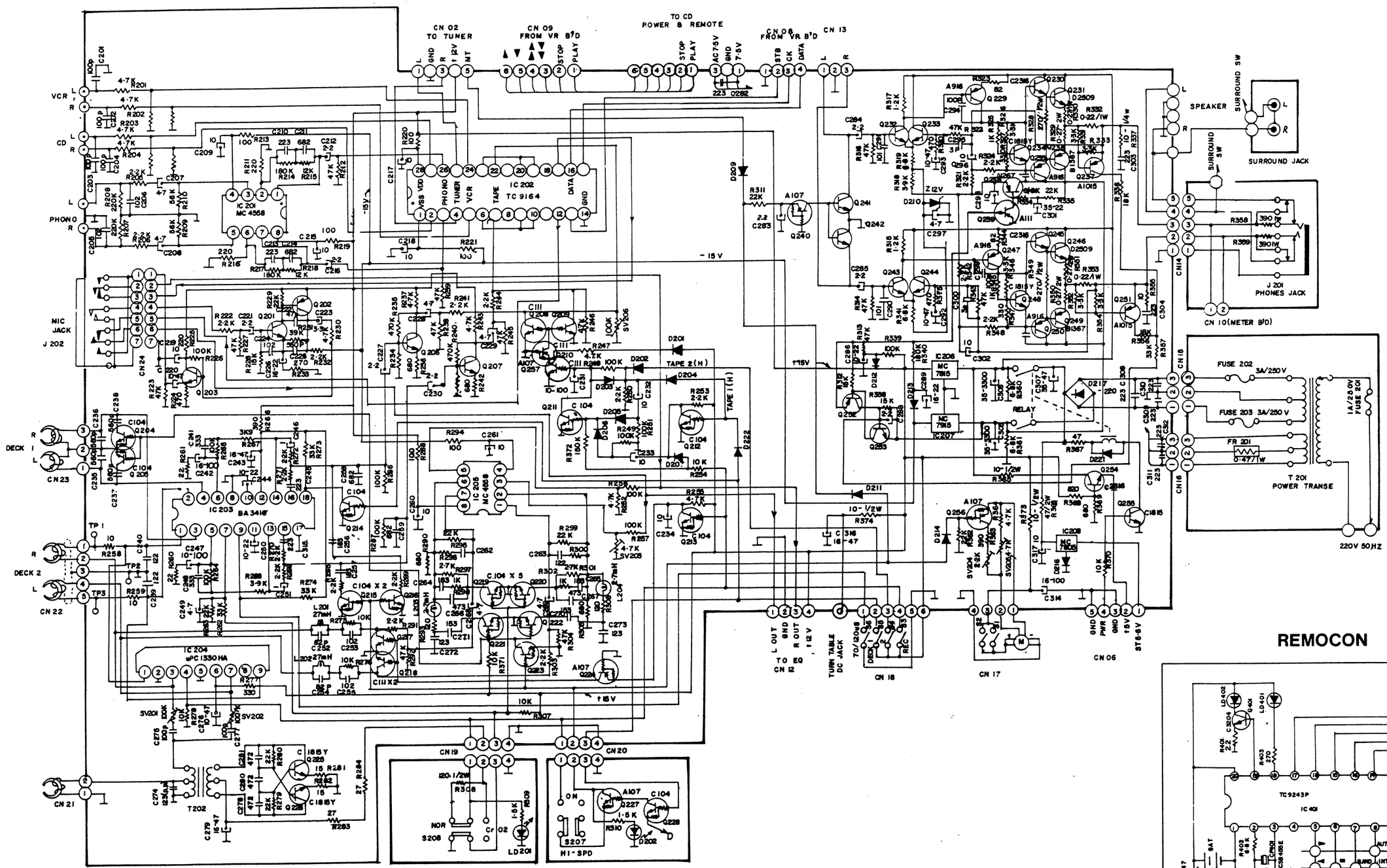
## REMOCON PCB



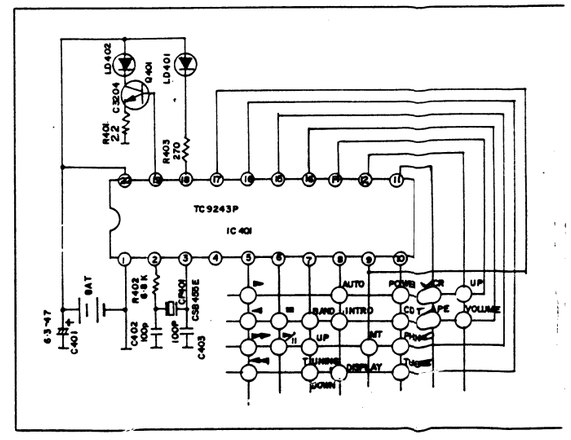

## POWER PCB



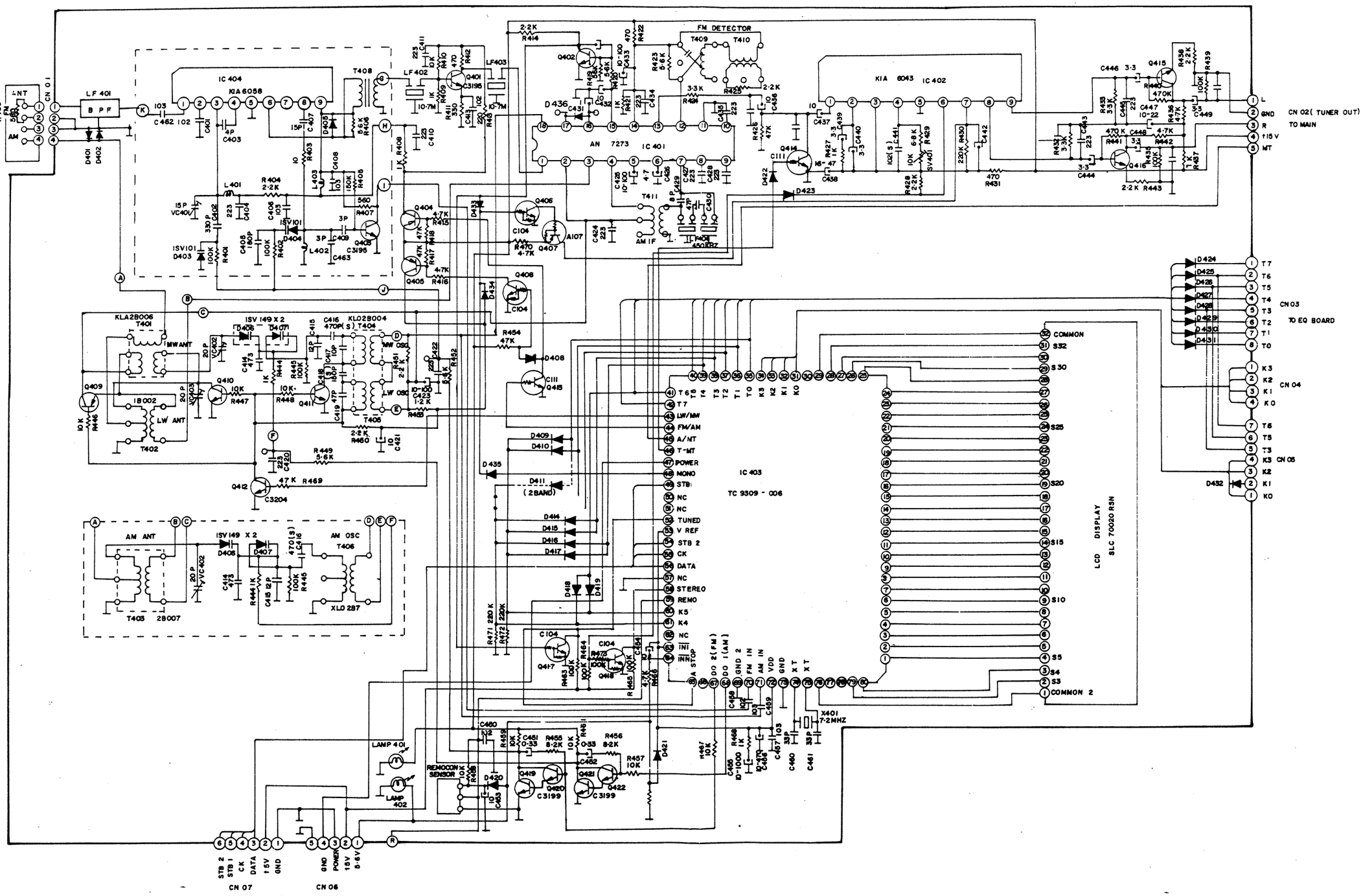
# SCHEMATIC DIAGRAM (MAIN)



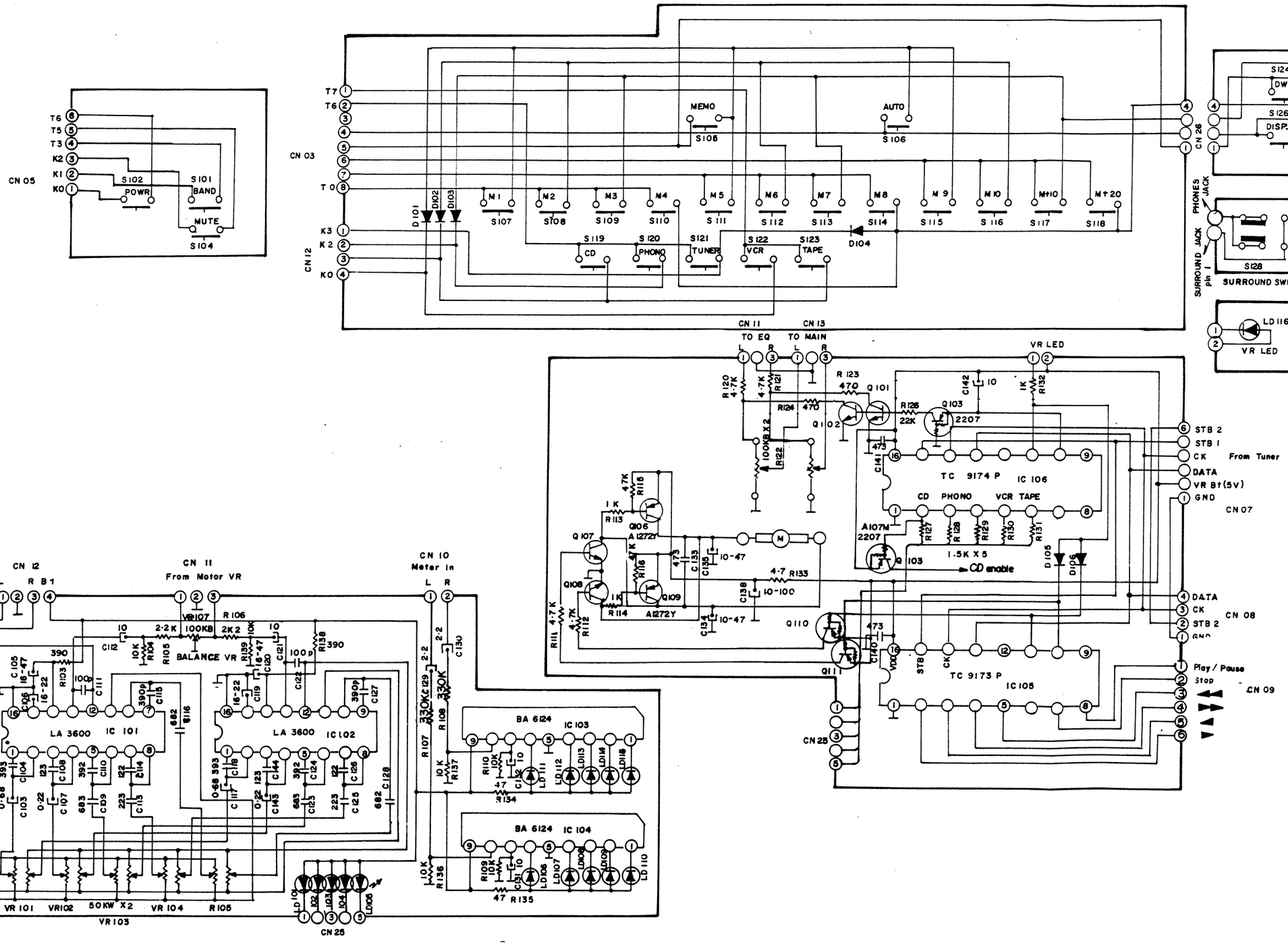

## REMOCON



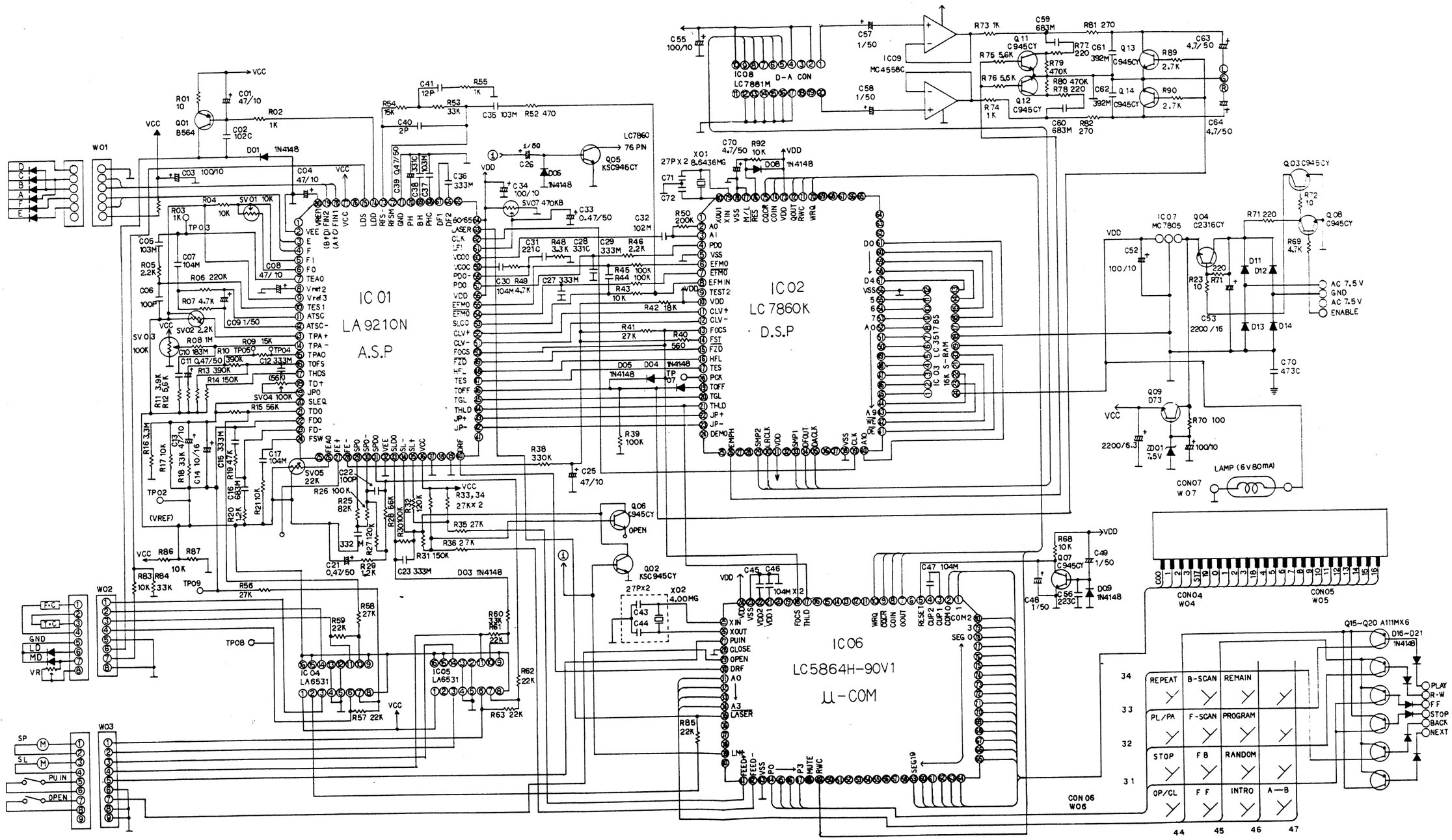
# SCHEMATIC DIAGRAM (TUNER)



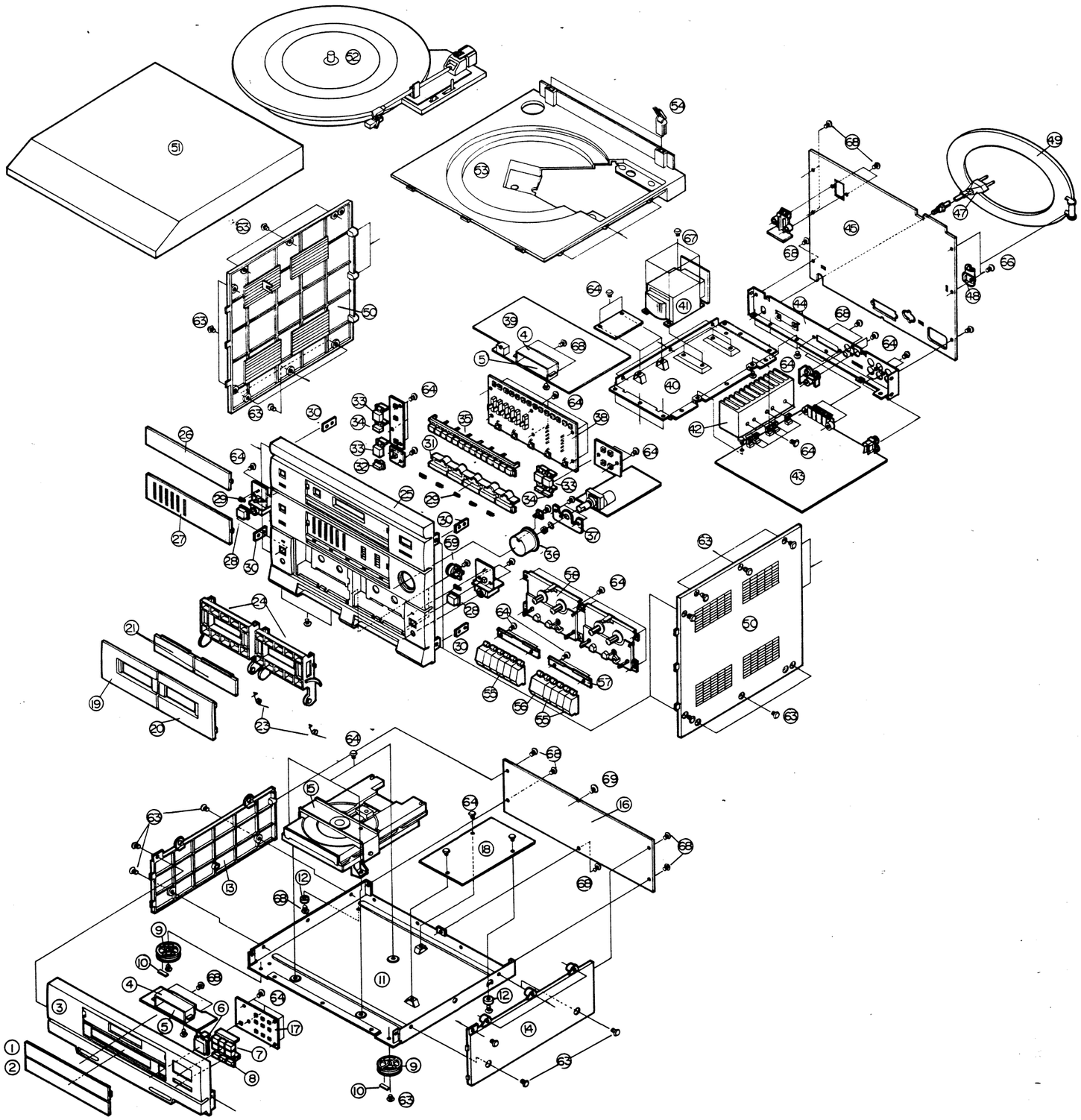
# SCHEMATIC DIAGRAM(SUB)



# SCHEMATIC DIAGRAM(CD)

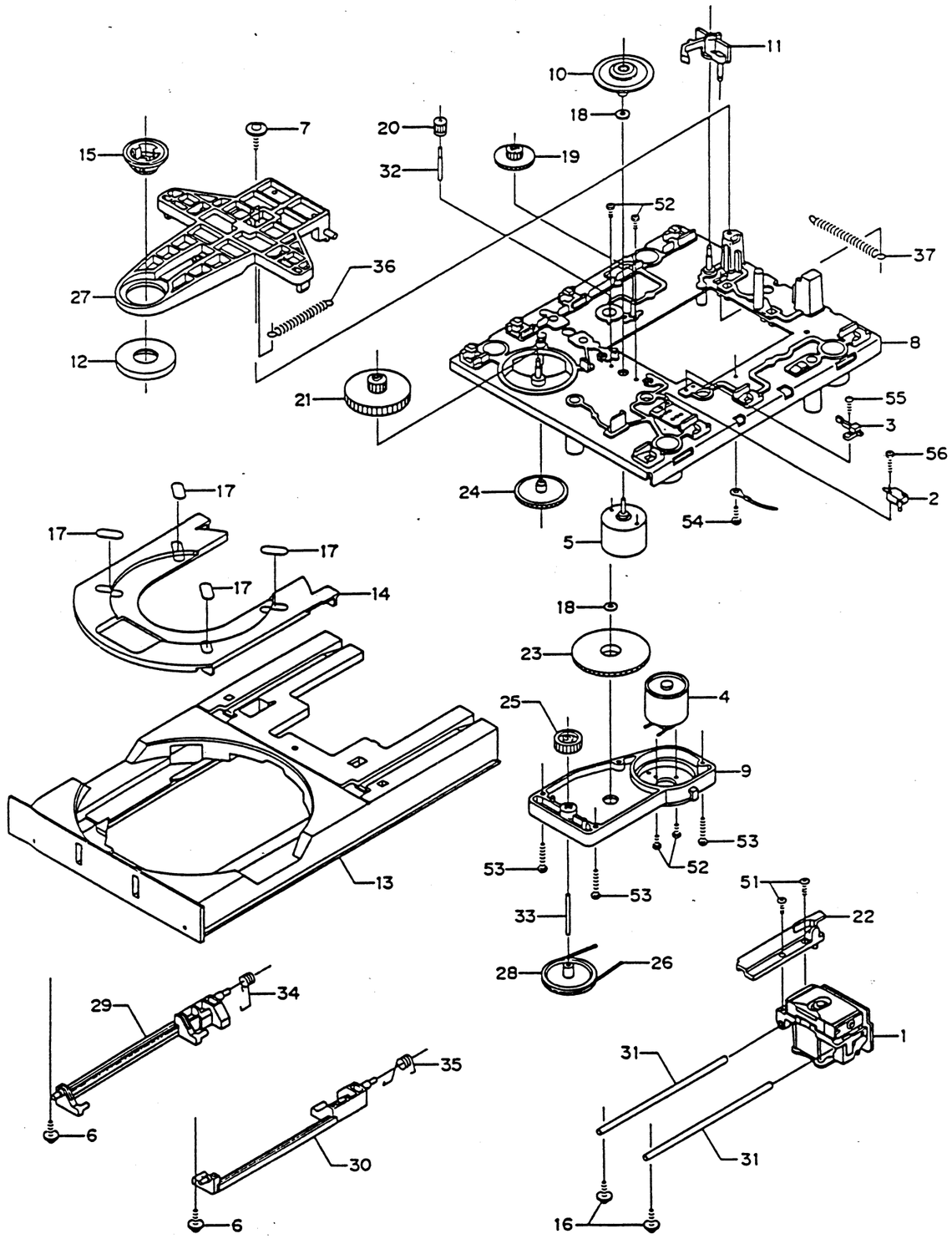


# EXPLODED VIEW

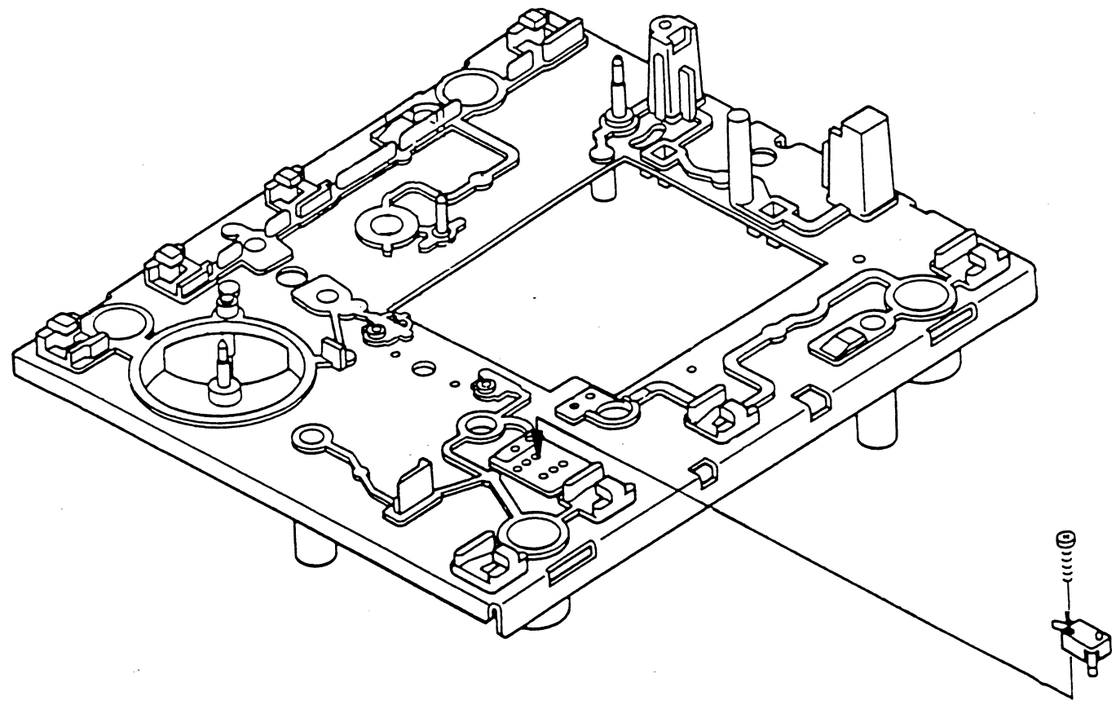


| NO | DESCRIPTION | REMARKS | Q'TY |
|---|---|---|---|
| 1 | CD WINDOW | | 1 |
| 2 | CD DOOR | | 1 |
| 3 | CD FRONT PANEL | | 1 |
| 4 | LCD COVER | | 2 |
| 5 | LCD FILTER | | 1 |
| 6 | OPEN/CLOSE KNOB | | 1 |
| 7 | CD SW KNOB | | 2 |
| 8 | CD FUNCTION KNOB | | 1 |
| 9 | FOOT | | 2 |
| 10 | CUSHION FOOT | | 2 |
| 11 | BOTTOM CHASSIS | | 1 |
| 12 | FOOT(REAR) | | 2 |
| 13 | CD SIDE COVER(L) | | 1 |
| 14 | CD SIDE COVER(R) | | 1 |
| 15 | CD MECHANISM | | 1 |
| 16 | CD REAR BOARD | | 1 |
| 17 | CD SUB PCB ASS'Y | | 1 |
| 18 | CD MAIN PCB ASS'Y | | 1 |
| 19 | DOOR BASE (L) | | 1 |
| 20 | DOOR BASE (R) | | 1 |
| 21 | DOOR WINDOW(L,R) | | 2 |
| 22 | | | |
| 23 | EJECT SPRING | | 2 |
| 24 | CASSETTE HOLDER | | 2 |
| 25 | FRONT PANEL | | 1 |
| 26 | WINDOW TUNER | | 1 |
| 27 | WINDOW EQ | | 1 |
| 28 | PUSH KNOB(A) | | 2 |
| 29 | LED INDICATOR | | 7 |
| 30 | SIDE BRACKET | | 4 |
| 31 | FUNCTION KNOB | | 1 |
| 32 | PUSH KNOB(B) | | 1 |
| 33 | TACT KNOB(A) | | 4 |
| 34 | TACT KNOB(B) | | 3 |
| 35 | PRESET KNOB | | 1 |
| 36 | VOLUME KNOB | | 1 |
| 37 | VOLUME BRACKET | | 1 |
| 38 | SUB PCB ASS'Y(MAIN) | | 1 |
| 39 | TUNER PCB ASS'Y(MAIN) | | 1 |
| 40 | BOTTOM CHASSIS | | 1 |
| 41 | TRANS FOMER | | 1 |
| 42 | HEAT SINK | | 1 |
| 43 | MAIN PCB ASS'Y(MAIN) | | 1 |
| 44 | REAR CHASSIS | | 1 |
| 45 | REAR BOARD(M) | | 1 |
| 46 | | | |
| 47 | POWER CORD | | 1 |
| 48 | ANT HOLDER | | 1 |
| 49 | AM ANT | | 1 |
| 50 | SIDE COVER(L,R) | | 2 |
| 51 | DUST COVER | | 1 |
| 52 | TURN TABLE | | 1 |
| 53 | PLAYER BASE | | 1 |
| 54 | HINGE | | 2 |
| 55 | DECK KNOB(A) | | 10 |
| 56 | DECK KNOB(B) | | 1 |
| 57 | DECK KNOB BRACKET | | 2 |
| 58 | DECK MECHANISM | SM300ASS'Y1 or S-802 | 1 |
| 59 | DAMPER GEAR | | 2 |
| 60 | | | |
| 61 | | | |
| 62 | | | |
| 63 | SCREW | BHT 3x10 T2 8 PH | 29 |
| 64 | SCREW | BHT 3x8 T2 | 47 |
| 65 | SCREW | BHT 3x10 T2 | 8 |
| 66 | SCREW | BHT 3x12 T2 8 PH | 1 |
| 67 | SCREW | BHT 4x10 T3 | 5 |
| 68 | SCREW | BHT 3x10 T2 8 PH | 11 |
| 69 | SCREW | BHT 3x10 T2 10 PH | 1 |
| 70 | SCREW | BHT 3x10 T2 20 PH | 2 |

# CDP MECHA


11
10
18
7
20
19
15
32
52
37
36
27
8
12
21
55
3
56
24
2
54
5
17
17
17
17
14
18
23
4
25
9
53
53
52
53
13
33
51
22
28
26
29
34
1
31
35
6
30
31
6
16

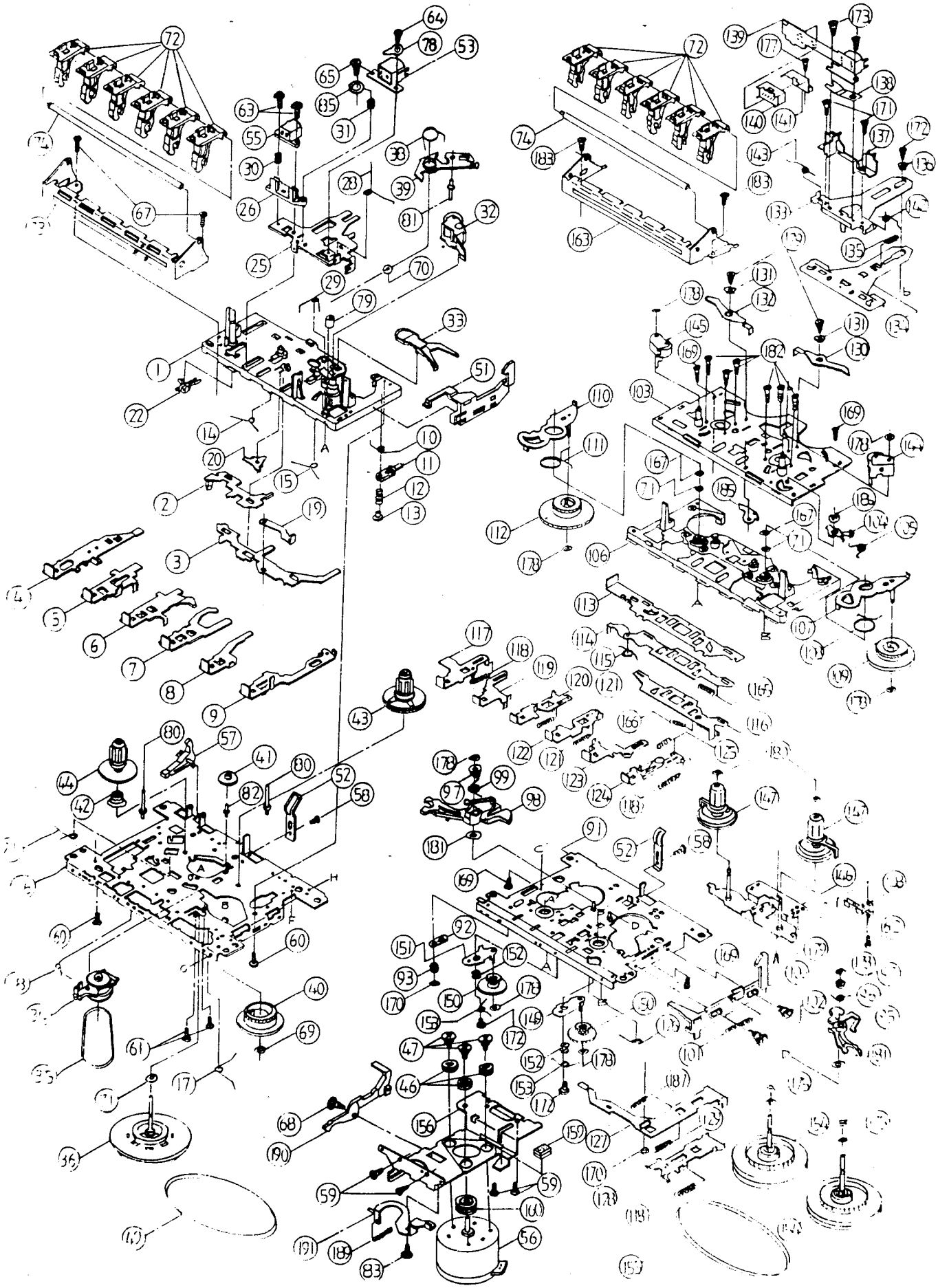




# MECHANISM PARTS LIST(CD86F2A)

| NO. | PARTS NO. | DESCRIPTION | Q'TY |
|---|---|---|---|
| | 141-2-4729-0710-00 | WIRE BAND | 2 |
| 1 | 1EA-0-A41A-0150-0 | PICK UP ASSY(SF-90NFK) | 1 |
| 2 | 4-2312-0701-00 | LEVER SW 1PIT | 1 |
| 3 | 4-2319-7417-00 | LEAF SW | 1 |
| 4 | 4-5279-7176-10 | MOTOR | 1 |
| 5 | 4-5279-7182-00 | SPINDLE MOTOR | 1 |
| 6 | 131-2-4201-2820-10 | SCREW(B TITE SEMS) | 2 |
| 7 | 131-2-4201-2830-00 | SCREW(B TITE SEMS)Z | 1 |
| 8 | 141-0-3119-2860-00 | CHASSIS ASSY | 1 |
| 9 | 141-0-3129-0310-00 | CHASSIS SUB ASSY | 1 |
| 10 | 141-0-5229-0030-00 | TURNTABLE ASSY | 1 |
| 11 | 141-0-5229-0030-00 | TURNTABLE ASSY | 1 |
| 12 | 141-0-8619-0030-00 | MAGNET ASSY | 1 |
| 13 | 141-2-1149-6470-20 | TABLE LOAD | 1 |
| 14 | 141-2-1149-6480-00 | TABLE CD | 1 |
| 15 | 141-2-3519-8380-00 | HOLDER DISK | 1 |
| 16 | 141-2-4219-4270-00 | SCREW WASHER | 2 |
| 17 | 141-2-4459-5130-00 | PAD DISK(FELT) | 4 |
| 18 | 141-2-5519-8180-00 | WASHER | 2 |
| 19 | 141-2-5519-8180-00 | GEAR PICK UP | 1 |
| 20 | 141-2-5519-8190-00 | GEAR MOTOR | 1 |
| 21 | 141-2-5519-8220-00 | GEAR TABLE LOAD | 1 |
| 22 | 141-2-5519-8230-00 | GEAR PICK UP RACK | 1 |
| 23 | 141-2-5519-8780-00 | GEAR LOAD UP | 1 |
| 24 | 141-2-5519-8790-00 | GEAR LOAD T.L | 1 |
| 25 | 141-2-5519-8800-00 | GEAR | 1 |
| 26 | 141-2-5649-3360-00 | BELT | 1 |
| 27 | 141-2-6229-0200-00 | FLAP DISK CRAMP | 1 |
| 28 | 141-2-6619-0860-00 | PULLEY | 1 |
| 29 | 141-2-7429-1220-00 | LEVER HOLD DISK L | 1 |
| 30 | 141-2-7429-1230-00 | LEVER HOLD DISK R | 1 |
| 31 | 141-2-7519-8830-00 | SHAFT PICK UP | 2 |
| 32 | 141-2-7519-8840-00 | SHAFT GEAR S | 1 |
| 33 | 141-2-7519-9120-00 | SHAFT PULLEY | 1 |
| 34 | 141-2-8529-5290-00 | SPRING LEVER LEFT | 1 |
| 35 | 141-2-8529-5300-00 | SPRING LEVER RIGHT | 1 |
| 36 | 141-2-8549-4380-00 | SPRING FLAP DISK CR | 1 |
| 37 | 141-2-8549-4390-00 | SPRING ARM | 1 |
| | 141-2-5229-0130-00 | TURNTABLE | 1 |
| | 141-2-4219-3670-00 | SET SCREW V CONE 2+4 | 1 |
| 51 | SE3FN205R0SA- | SCR FLT PCS 2×5 | 2 |
| 52 | SE3PN173R0SM- | SCR PAN PCS 1.7×3 | 4 |
| 53 | SFBAN26140SE- | SCR S-TPG BRZ 2.6×14 | 3 |
| 54 | SFBAN306R0SE- | SCR S-TPG BRZ 3×6 | 1 |
| 55 | SFBPN206R0SE- | SCR STPG PAN 2×6 | 1 |
| 56 | ST3PN17100SM- | SCR TPG PAN 1.7×10 | 1 |

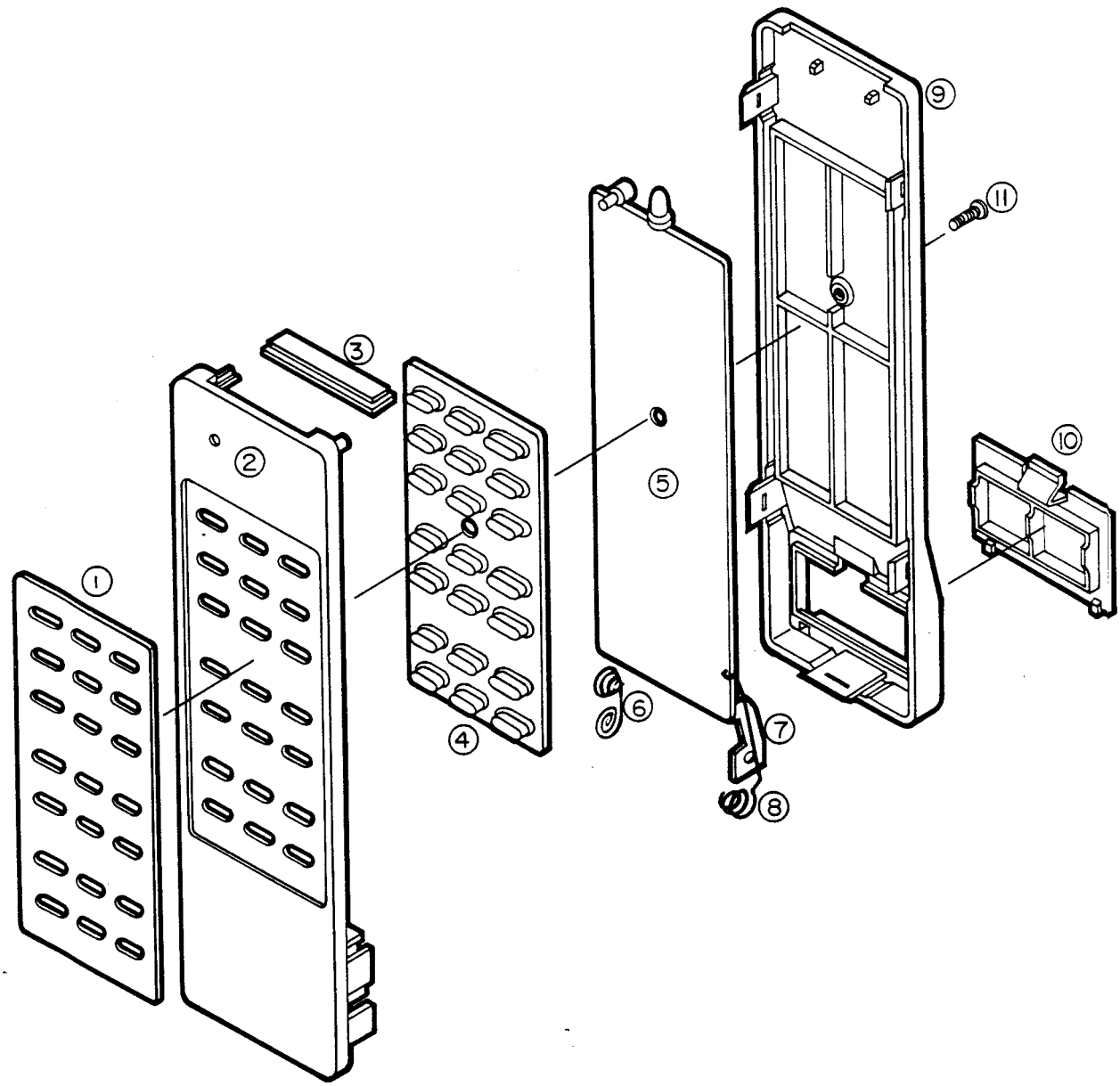
# CASSETTE MECHA



| NO | DESCRIPTION | PART NO | Q'TY |
|---|---|---|---|
| 1 | SUB CHASSIS | 1-0802-201 | 1 |
| 2 | SWITCH ACTUATOR | 1-0802-105 | 1 |
| 3 | LOCK PLATE | 1-0802-104 | 1 |
| 4 | REC BUTTON LEVER(F) | 1-0802-106 | 1 |
| 5 | PLAY BUTTON LEVER(F) | 1-0802-107 | 1 |
| 6 | REW BUTTON LEVER(F) | 1-0802-108 | 1 |
| 7 | FF BUTTON LEVER(F) | 1-0802-109 | 1 |
| 8 | STOP BUTTON LEVER(F) | 1-0802-110 | 1 |
| 9 | PAUSE BUTTON LEVER(F) | 1-0802-111 | 1 |
| 10 | AUTO OFF SPG | 1-0802-401 | 1 |
| 11 | PAUSE ARM | 1-0802-209 | 1 |
| 12 | PAUSE ARM SPG | 1-0802-402 | 1 |
| 13 | PAUSE CAP | 1-0802-224 | 1 |
| 14 | LEVER SPG(A) | 1-0802-403 | 1 |
| 15 | LEVER SPG(B) | 1-0802-404 | 1 |
| 16 | CHASSIS | 1-0802-101 | 1 |
| 17 | LOCK PLATE SPG | 1-0802-405 | 1 |
| 18 | PLAY SPG | 1-0802-406 | 1 |
| 19 | LOCK PLATE LINK | 1-0802-119 | 1 |
| 20 | PLAY LINK | 1-0802-120 | 1 |
| 21 | REC SPG | 1-0802-407 | 1 |
| 22 | LEAF SWITCH | MSW-1541 ACV | 1 |
| 23 | MUTE SWITCH | MSW-17821 MPDO | 1 |
| 24 | HEAD PANEL S | 1-0802-102 | 1 |
| 25 | HEAD PANEL L | 1-0802-103 | 1 |
| 26 | HEAD BLOCK | 1-0802-205 | 1 |
| 27 | TAPE GUIDE | 1-0802-206 | 1 |
| 28 | PINCH ROLLER SPG | 1-0802-408 | 1 |
| 29 | SHUT OFF SPG | 1-0802-409 | 1 |
| 30 | E HEAD SPG | 1-0202-410 | 1 |
| 31 | AZIMUTH SPG | 1-0802-410 | 1 |
| 32 | PINCH ROLLER ARM ASS'Y | 3-0802-210 | 1 |
| | 1)PINCH ROLLER ARM(B) | 1-0802-210 | 1 |
| | 2)PINCH ROLLER | 1-0802-561 | 1 |
| | 3)PINCH ROLLER SHAFT(ø1.5x10) | 1-0202-302 | 1 |
| 33 | SHUT OFF LEVER | 1-0802-204 | 1 |
| 34 | CENTER CLUTCH ASS'Y | 3-0802-214 | 1 |
| | 1)FELT BASE | 1-0802-215 | 1 |
| | 2)CLUTCH FELT(A)(18x3.5x0.8) | 1-0802-571 | 1 |
| | 3)CENTER PULLEY | 1-0802-211 | 1 |
| | 4)CENTER CLUTCH SPG | 1-0802-411 | 1 |
| | 5)SPG STOPPER | 1-0802-212 | 1 |
| | 6)CENTER GEAR SHAFT | 1-0802-301 | 1 |
| | 7)CENTER GEAR | 1-0802-213 | 1 |
| | 8)CENTER ARM | 1-0802-214 | 1 |
| | 9)P WASHER(1.6x4.0x0.2) | 1-0202-532 | 1 |
| 35 | SUB BELT(ø34.7x1.0 | 1-0202-556 | 1 |
| 36 | FLY WHEEL ASS'Y(A) | 3-0802-216 | 1 |
| | 1)FLY WHEEL PLATE | 1-0802-124 | 1 |
| | 2)FLY WHEEL PULLEY(A) | 1-0802-216 | 1 |
| | 3)CAPSTAN(1.8x30) | 1-0802-302 | 1 |
| | 4)FLY WHEEL GEAR | 1-0802-218 | 1 |
| 38 | FWD BASE SPG | 1-0802-412 | 1 |
| 39 | FWD BASE | 1-0802-118 | 1 |
| 40 | FWD IDLER GEAR | 1-0802-207 | 1 |
| 41 | FF GEAR | 1-0802-208 | 1 |
| 42 | BACK TENSION SPG | 1-0802-413 | 1 |
| 43 | TAKE UP REEL ASS'Y | 3-0802-221 | 1 |
| | 1)REEL CAP | 1-0802-219 | 1 |
| | 2)AUTO SENSOR | 1-0802-223 | 1 |
| | 3)REEL CLUTCH SPG | 1-0802-414 | 1 |
| | 4)FWD GEAR | 1-0802-221 | 1 |
| | 5)CLUTCH FELT(B) | 1-0802-572 | 1 |
| | 6)REEL GEAR | 1-0802-220 | 1 |
| | 7)REEL STOPPER | 1-0802-222 | 1 |
| 44 | SUPPLY REEL ASS'Y | 3-0802-222 | 1 |
| | 1)REEL CAP | 1-0802-219 | 1 |
| | 2)REEL GEAR | 1-0802-220 | 1 |
| | 3)REEL STOPPER | 1-0802-222 | 1 |
| 46 | MOTOR RUBBER | 1-0202-562 | 3 |
| 47 | MOTOR COLLAR SCREW(M2.6x3.7) | 1-0202-503 | 3 |
| 49 | MAIN BELT(B) | 1-0852-551 | 1 |
| 51 | EJECT LEVER(F) | 1-0802-202 | 1 |
| 52 | PACK SPG(F) | 1-0202-138 | 2 |
| 53 | R/P HEAD | MS 15RAA2N1 | 1 |
| 55 | E HEAD | LE15A | 1 |
| 56 | MOTOR | EG-530YD2B | 1 |
| 57 | REC SAFETY LEVER | 1-0202-221 | 1 |
| 58 | C TAPPING SCREW(M2x3) | 1-0202-507 | 2 |
| 59 | C TAPPING SCREW(M2x4) | 1-0202-508 | 4 |
| 60 | P TAPPING BIND SCREW(M2x5) | 1-0202-509 | 2 |
| 61 | TAPPING SCREW(FOR CAMEAR) (M2x4.5) | 1-0802-501 | 2 |
| 62 | TAPPING SCREW(M2x6) | 1-0202-511 | 1 |
| 63 | + − CAP SCREW(M2x8) | 1-0202-518 | 2 |
| | + − CAP SCREW(M2x7.5) | 1-0202-519 | |
| 64 | + BIND SCREW(M2x3) | 1-0802-502 | 1 |
| 65 | AZIMUTH SCREW(M2x7) | 1-0202-514 | 1 |
| 67 | S TAPPING SCREW(FOR CAMERA) (M2x8) | 1-0802-504 | 2 |
| 68 | P K COLLAR SCREW(B) (M2x6.1) | 1-W202-506 | 1 |
| 69 | P WASHER CUT(1.2x3.8x0.4) | 1-0802-531 | 1 |
| 70 | P WASHER CUT(1.5x4.0x0.4) | 1-0802-532 | 1 |
| 71 | P WASHER(2x3.5x0.3) | 1-0802-533 | 3 |
| 72 | OPERATION LEVER | 1-0202-223 | 12 |
| 73 | BUTTON FRAME | 1-0802-126 | 1 |
| 74 | BUTTON LEVER SHAFT(S) | 1-0202-309 | 2 |
| 78 | LUG PLATE | 1-0202-150 | 1 |
| 79 | CAPSTAN METAL(1.8x4.5x9) | 1-0802-306 | 1 |
| 80 | REEL SHAFT(1.5x14.4) | 1-0802-303 | 2 |
| 81 | FWD BASE SHAFT | 1-0802-304 | 1 |
| 82 | FF GEAR SHAFT | 1-0802-305 | 1 |
| 83 | P K COLLAR SCREW(A) (M2x3.4) | 1-W202-506 | 1 |
| 84 | E-HEAD BASE(M G ARM) | 1-0802-227 | 1 |
| 85 | FLAT WASHER | 1-0202-151 | 1 |
| 86 | REC SPRING PLATE | 1-0202-139 | 1 |
| 87 | REC SWITCH BRACKET | 1-0802-125 | |
| 88 | REC SWITCH | MSW-0094-NBK | 1 |
| 89 | METAL SWIT | | |
| 91 | CHASSIS ASS'Y | 3-0805-101 | 1 |
| | 1)CHASSIS | 1-0805-101 | 1 |
| | 2)AUTO STOP SHAFT | 1-0805-301 | 2 |
| | 3)PAUSE LEVER SHAFT | 1-0805-302 | 1 |
| | 4)RELAY PLATE SHAFT | 1-0805-303 | 1 |
| 92 | PAUSE LEVER | 1-0805-201 | 1 |
| 93 | PAUSE LEVER SPRING | 1-0805-401 | 1 |
| 95 | AUTO LEVER F | 1-0805-202 | 1 |
| 96 | AUTO LEVER F SPRING | 1-0805-402 | 1 |
| 97 | SPRING STOPPER | 1-0805-203 | 2 |
| 98 | AUTO LEVER R | 1-0805-204 | 1 |
| 99 | AUTO LEVER R SPRING | 1-0805-403 | 1 |
| 100 | EJECT SLIDE LEVER(F) | 1-0805-205 | 1 |
| 101 | EJECT SLIDE LEVER SPRING | 1-0805-404 | 1 |
| 102 | P KICK COLLER SCREW(A) | 1-0805-509 | 2 |
| 103 | SUB CHASSIS ASS'Y | 3-0805-102 | 1 |
| | 1)SUB CHASSIS | 1-0805-102 | 1 |
| | 2)PINCH ROLLER ARM SHAFT | 1-0805-304 | 2 |
| | 3)TURN OVER SHAFT | 1-0805-305 | 1 |
| 104 | TURN OVER ARM | 1-0805-103 | 1 |
| 105 | TURN OVER SPRING | 1-0805-405 | 1 |
| 106 | BUTTON BASE ASS'Y | 3-0805-207 | 1 |
| | 1)BUTTON BASE | 1-0805-207 | 1 |
| | 2)METAL | 1-0805-306 | 2 |
| 107 | T GEAR ARM F ASS'Y | 3-0805-104 | 1 |
| | 1)T GEAR ARM F | 1-0805-104 | 1 |
| | 2)T GEAR SHAFT | 1-0805-307 | 1 |

| NO | DESCRIPTION | PART NO | Q'TY |
|---|---|---|---|
| 108 | T GEAR ARM F SPRING | 1-0805-406 | 1 |
| 109 | T CAM GEAR F | 1-0805-208 | 1 |
| 110 | T GEAR ARM R ASS'Y | 3-0805-105 | 1 |
| | 1)T GEAR ARM R | 1-0805-105 | 1 |
| | 2)T GEAR SHAFT | 1-0805-307 | 1 |
| 111 | T GEAR ARM R SPRING | 1-0805-407 | 1 |
| 112 | T CAM GEAR R | 1-0805-209 | 1 |
| 113 | SLIDE PLATE | 1-0805-106 | 1 |
| 114 | LOCK ACTUATOR ASS'Y | 3-0805-107 | 1 |
| | 1)LOCK ACTUATOR | 1-0805-107 | 1 |
| | 2)LOCK RELEASE PLATE | 1-0805-108 | 1 |
| | 3)RELEASE PLATE SHAFT | 1-0805-308 | 1 |
| 115 | LOCK RELEASE SPRING | 1-0805-408 | 1 |
| 116 | S/W ACTUATOR ASS'Y | 3-0805-109 | 1 |
| | 1)S/W ACTUATOR | 1-0805-109 | 1 |
| | 2)EJECT KICK ARM | 1-0805-110 | 1 |
| | 3)EJECT KICK ARM SHAFT | 1-0805-315 | 1 |
| 117 | MODE BUTTON LEVER(F) ASS'Y | 3-0805-111 | 1 |
| | 1)MODE BUTTON LEVER(F) | 1-0805-111 | 1 |
| | 2)PUASE PIN | 1-0805-309 | 1 |
| 118 | BUTTON LEVER SPRING | 1-0805-409 | 3 |
| 119 | PLAY BUTTON LEVER(F) | 1-0805-113 | 1 |
| 120 | FF BUTTON LEVER F(F) | 1-0805-115 | 1 |
| 121 | FF BUTTON LEVER R SPRING | 1-0805-410 | 2 |
| 122 | FF BUTTON LEVER R(F) | 1-0805-117 | 1 |
| 123 | STOP BUTTON LEVER(F) | 1-0805-119 | 1 |
| 124 | PROGRAM BUTTON LEVER(F) ASS'Y | 3-0805-121 | 1 |
| | 1)PROGRAM BUTTON LEVER(F) | 1-0805-121 | 1 |
| | 2)CHANGE PULL ARM | 1-0805-123 | 1 |
| | 3)PULL ARM PIN | 1-0805-310 | 1 |
| | 4)MTA PIN | 1-0805-311 | 1 |
| 125 | PULL ARM SPRING | 1-0805-411 | 1 |
| 126 | STOP BUTTON LEVER SPRING | 1-0805-412 | 1 |
| 127 | RELEASE PLATE | 1-0805-124 | 1 |
| 128 | FF S/W PLATE | 1-0805-125 | 1 |
| 129 | R C SPRING | 1-0805-413 | 1 |
| 130 | AUTO CONTROL ARM F | 1-0805-126 | 1 |
| 131 | CONTROL ARM COLLER | 1-0805-316 | 2 |
| 132 | AUTO CONTROL ARM R | 1-0805-127 | 1 |
| 133 | HEAD PANEL | 1-0805-128 | 1 |
| 134 | R C PLATE | 1-0805-129 | 1 |
| 135 | R C PLATE SPRING | 1-0805-414 | 1 |
| 136 | H P COLLER | 1-0805-317 | 1 |
| 137 | TAPE GUID | 1-0805-210 | 1 |
| 138 | HEAD SPRING PLATE | 1-0805-130 | 1 |
| 139 | P HEAD | BD24F | 1 |
| 140 | SLIDE S/W | R66-3-67 | 1 |
| 141 | S/W BRACKET | 1-0805-131 | 1 |
| 142 | PINCH ROLLER SPRING F | 1-0855-415 | 1 |
| 143 | PINCH ROLLER SPRING R | 1-0805-416 | 1 |
| 144 | PINCH ROLLER F ASS'Y | 3-0805-132 | 1 |
| | 1)PINCH ROLLER FLAME F | 1-0805-132 | 1 |
| | 2)PINCH ROLLER(60R) | 1-0805-561 | 1 |
| | 3)PINCH ROLLER PIN | 1-0202-302 | 1 |
| 145 | PINCH ROLLER R ASS'Y | 3-0805-133 | 1 |
| | 1)PINCH ROLLER FLAME R | 1-0805-133 | 1 |
| | 2)PINCH ROLLER(60R) | 1-0805-561 | 1 |
| | 3)PINCH ROLLER PIN | 1-0202-302 | 1 |
| 146 | REEL PLATE ASS'Y | 3-0805-134 | 1 |
| | 1)REEL PLATE | 1-0805-134 | 1 |
| | 2)REEL SHAFT | 1-0805-312 | 2 |
| 147 | REEL ASS'Y | 3-0805-211 | 2 |
| | 1)REEL SPRING PLATE | 1-0805-211 | 2 |
| | 2)B T SPRING | 1-0805-417 | 2 |
| | 3)T U CLUTCH SPRING M | 1-0805-418 | 2 |
| | 4)SENSING PLATE | 1-0805-212 | 2 |
| | 5)CLUTCH HOLDER | 1-0805-213 | 2 |
| | 6)CLUTCH HOLDER FELT | 1-0805-571 | 2 |
| | 7)T CULTCH GEAR M | 1-0805-214 | 2 |
| | 8)T CULTCH FELT | 1-0805-572 | 2 |
| | 9)FF CULTCH GEAR | 1-0805-215 | 2 |
| | 10)FF CULTCH FELT | 1-0805-573 | 2 |
| | 11)REEL DISK | 1-0805-216 | 2 |
| | 12)TAFLON WASHER 6.4x9x0.2 | 1-0805-536 | 2 |
| 148 | LEAF S/W | MSW-1290NBA | 1 |
| 149 | FF GEAR ARM F ASS'Y | 3-0805-135 | 1 |
| | 1)FF GEAR ARM F | 1-0805-135 | 1 |
| | 2)FF GEAR SHAFT | 1-0805-313 | 1 |
| 150 | FF GEAR | 1-0805-217 | 2 |
| 151 | FF GEAR ARM R ASS'Y | 3-0805-136 | 1 |
| | 1)FF GEAR ARM R | 1-0805-136 | 1 |
| | 2)FF GEAR SHAFT | 1-0805-313 | 1 |
| 152 | FF GEAR ARM COLLER | 1-0805-318 | 2 |
| 153 | FF GEAR ARM F SPRING | 1-0805-419 | 2 |
| 154 | FLYWHEEL ASS'Y | 3-0805-218 | 2 |
| | 1)FLYWHEEL | 1-0805-218 | 2 |
| | 2)FLYWHEEL CAP | 1-0805-219 | 2 |
| | 3)FLYWHEEL GEAR | 1-0805-220 | 2 |
| | 4)FLYWHEEL PLATE | 1-0805-137 | 2 |
| | 5)CAPSTAN SHAFT | 1-0805-314 | 2 |
| 155 | MAIN BELT A | 1-0805-551 | 1 |
| 156 | MOTOR BRACKET(W) | 1-0852-101 | 1 |
| 159 | ANTI-VIBRATION FLIT | 1-0805-574 | 1 |
| 160 | MOTOR PULLEY(W) | 1-0805-221 | 1 |
| 163 | BUTTON FLAME | 1-0805-139 | 1 |
| 165 | LOCK ACTUATOR SPRING | 1-0805-420 | 1 |
| 166 | S/W ACTUATOR SPRING | 1-0805-421 | 1 |
| 167 | P WASHER 1.45x4x0.3 | 1-0805-531 | 2 |
| 169 | P TAPPING SCREW M2x6 | 1-0805-501 | 4 |
| 170 | P WASHER CUT 2.1x5x0.5 | 1-0805-532 | 1 |
| 171 | + TAMS SCREW M2x6 | 1-0805-502 | 2 |
| 172 | CAMERA S TAPPING SCREW M1.7x4 | 1-0805-503 | 3 |
| 173 | SCREW M2x5 | 1-0805-504 | 2 |
| 175 | P WASHER 2x2.8x0.3 | 1-0805-533 | 2 |
| 177 | CAMERA S TAPPING SCREW M1.7x2.5 | 1-0805-505 | 1 |
| 178 | P WASHER CUT 1.2x3x0.25 | 1-0202-533 | 8 |
| 179 | CAMERA S TAPPING M1.7x3 | 1-0805-506 | 3 |
| 180 | P WASHER CUT 1.2x3x0.4 | 1-0805-534 | 2 |
| 181 | P WASHER 3x8.5x0.13 | 1-0805-535 | 2 |
| 182 | CAMERA S TAPPING SCREW M1.7x9 | 1-0805-507 | 6 |
| 183 | CAMERA S TAPPING SCREW M2x9 | 1-0805-508 | 2 |
| 185 | R C ARM | 1-0805-140 | 1 |
| 186 | E-RING $\phi$ 2 (22Z16060) | 1-0805-581 | 1 |
| 187 | BUTTON LEVER SPRING P | 1-0805-422 | 1 |
| 189 | P KICK LEVER SPRING | 1-0852-401 | 1 |
| 190 | P KICK LEVER B (MOLD) | 1-0852-201 | 1 |
| 191 | P KICK LEVER(PRESS) | 1-0802-102 | 1 |

# REMOCON MECHA




| NO | DESCRIPTION | REMARKS | Q'TY |
|---|---|---|---|
| 1 | REMOCON SHEET | | 1 |
| 2 | TOP CASE | | 1 |
| 3 | WINDOW REMOCON | | 1 |
| 4 | SILICON RUBBER | | 1 |
| 5 | REMOCON PCB ASS'Y | | 1 |
| 6 | BATTERY SPRING(A) | | 1 |
| 7 | BATTERY SPRING(B) | | 1 |
| 8 | BATTERY SPRING(C) | | 1 |
| 9 | BOTTOM CASE | | 1 |
| 10 | BATTERY COVER | | 1 |
| 11 | SCREW | | 1 |

# ELECTRICAL PARTS

## TUNER

| DESCRIPTION | SPECIFICATION | UNIT | REMARK |
|---|---|---|---|
| PCB | 247X138 | 1 | |
| I.C | KIA6043 or KIA2263 | 1 | IC402 |
| I.C | TC9309F-006 | 1 | IC403 |
| I.C | AN 7273 | 1 | IC401 |
| LCD DISPLAY | 70020RSN | 1 | |
| T.R | C3195 or C2786Y | 1 | Q401 |
| T.R | C3199Y or KSC2785Y | 9 | Q402,410,411,415,416,419, Q420,421,422 |
| T.R | A1267 or KSA1175Y | 3 | Q404,405,409 |
| T.R | C111MY or KSR1210 | 2 | Q413,414 |
| T.R | A107MY or KSR2206 | 1 | Q407 |
| T.R | C104MY or KSR1204 | 4 | Q417,418,408,406 |
| T.R | KSD 1021Y | 1 | Q412 |
| DIODE | IN4148M | 5 | Q401,402,420,421,432 |
| DIODE | IN4148 | 22 | Q408,409,410,415,416,417,418, Q419,422,423,424,425,426,427, Q428,429,430,433,434,435,431, Q414 |
| DIODE | MA27WA | 1 | D436 |
| VRICAP DIODE | 1SV 149 | 2 | D406, 407 |
| ANT TERMINAL | SC021058 | 1 | BUILT IN ANT FM TERMINAL |
| B.P.F | BPMB8L | 1 | LF401 |
| AM ANT COIL | KLA 2B 006/SLL01 | 1 | T401 |
| AM OSC COIL | KLO 2B004/SLL02 | 1 | T406 |
| FM DET(A) | KLI 3B013-G/SLF02 | 1 | T409 |
| FM DET(B) | KLI 3B014-G/SLF03 | 1 | T410 |
| AM IFT | KLI 2B101-G/SLA03 | 1 | T411 |
| LW ANT COIL | KLI1B002/SLL03 | 1 | T402 |
| LW ANT COIL | LO/SLL04 | 1 | T405 |
| LPF COIL | SLP 01(9C002S) | 2 | |
| TUNER | KEF-033AV or KHF201 | 1 | |
| CERAMIC FILTER | FE107MSU-A | 2 | LF402,403 |
| CERAMIC FILTER | FSFZ 450F | 1 | LF404 |
| TRIMMER CAPACITOR | 20P | 2 | VC402,403 |
| CRYSTAL | 7.2MHZ | 1 | X401 |
| REMOCON SENSOR | USR 721 | 1 | |
| PILOT LAMP | 5V | 1 | LAMP402 |
| PILOT LAMP | 12V | 1 | LAMP401 |
| SEMI VR | 10K | 1 | SV401 |
| STYROL CAPACITOR | 102 | 1 | C441 |
| STYROL CAPACITOR | 150 | 1 | C418 |
| STYROL CAPACITOR | 470 | 1 | C416 |
| ELECT CAP | 10/1000 | 1 | C455 |
| ELECT CAP | 10/470 | 1 | C456 |
| ELECT CAP | 10/100 | 3 | C423,425,433 |
| ELECT CAP | 16/47 | 1 | C438 |
| ELECT CAP | 10/22 | 1 | C447 |
| ELECT CAP | 16/10 | 6 | C421,432,436,437,453,454 |
| ELECT CAP | 50/4.7 | 1 | C426 |
| ELECT CAP | 50/3.3 | 6 | C439,440,444,446,448,449 |
| ELECT CAP | 50/1 | 2 | C431,442 |
| ELECT CAP | 50/0.33 | 2 | C451,452 |
| CERAMIC CAP | 8PF | 1 | C429 |
| CERAMIC CAP | 10PF | 1 | C417 |
| CERAMIC CAP | 12PF | 1 | C415 |
| CERAMIC CAP | 30PF | 2 | C460,461 |
| CERAMIC CAP | 47PF | 2 | C419,430 |
| CERAMIC CAP | 0.001UF | 3 | C413,450,458 |
| CERAMIC CAP | 0.01UF | 2 | C457,459 |
| CERAMIC CAP | 0.022UF | 9 | C410,411,420,422,424,427 C428,434,435 |
| CERAMIC CAP | 0.047UF | 1 | C414 |
| MYLAR CAP | 0.015UH | 2 | C443,445 |
| RESISTOR | 1/4W 220 | 2 | R413,408 |
| RESISTOR | 1/4W 330 | 1 | R411 |
| RESISTOR | 1/4W 470 | 3 | R412,422,431 |
| RESISTOR | 1/6W 270 | 1 | FTZ |
| RESISTOR | 1/6W 560 | 1 | R474 |
| RESISTOR | 1/4W 1K | 3 | R409,421,437 |
| RESISTOR | 1/6W 1K | 3 | R427,444,468 |
| RESISTOR | 1/6W 1.2K | 2 | R438,443 |
| RESISTOR | 1/4W 1.2K | 1 | R453 |
| RESISTOR | 1/4W 2.2K | 4 | R414,425,450,451 |
| RESISTOR | 1/6W 2.2K | 1 | R428 |
| RESISTOR | 1/4W 3.3K | 4 | R424 |
| RESISTOR | 1/6W 3.3K | 2 | R433,432 |
| RESISTOR | 1/4W 4.7K | 4 | R415,416,466,470 |
| RESISTOR | 1/6W 4.7K | 2 | R436,442 |
| RESISTOR | 1/4W 5.6K | 3 | R420,423,452 |
| RESISTOR | 1/6W 5.6K | 1 | R449 |
| RESISTOR | 1/6W 6.8K | 1 | R429 |
| RESISTOR | 1/6W 8.2K | 2 | R455,456 |
| RESISTOR | 1/4W 10K | 5 | R410,446,457,458,467 |
| RESISTOR | 1/6W 10K | 4 | R447,448,459,461 |
| RESISTOR | 1/6W 12K | 2 | R435,439 |
| RESISTOR | 1/4W 47K | 4 | R417,418,454,469 |
| RESISTOR | 1/6W 47K | 1 | R426 |
| RESISTOR | 1/4W 56K | 1 | R419 |
| RESISTOR | 1/4W 100K | 3 | R463,464,465 |
| RESISTOR | 1/6W 100K | 2 | R445,473 |
| RESISTOR | 1/4W 220K | 2 | R471,472 |
| RESISTOR | 1/6W 220K | 1 | R430 |
| RESISTOR | 1/6W 470K | 2 | R441,440 |
| WAFER | 2MM 4P | 1 | CN04 |
| WAFER | 2.5MM 4P | 1 | CN01 |
| WAFER | 2MM 6P | 2 | CN05,07 |
| WAFER | 2MM 8P | 1 | CN03 |
| FLAT WIRE ASS'Y | 05-200-H KW4 | 1 | CN01 |
| FLAT WIRE ASS'Y | 05-300-H UY5 | 1 | CN02 |
| FLAT WIRE ASS'Y | B-350-H UY5 | 1 | CN06 |
| JUMP WIRE | 5MM | 11 | |
| JUMP WIRE | 10MM | 53 | |
| LCD FILTER | PVC 1.0T | 1 | |
| LCD CASE | ABS | 1 | |
| SCREW | BH 3X8 T2 | 1 | |

## DECK ASS'Y

| | | | |
|---|---|---|---|
| DECK MECHANISM | SM300ADSY1 or TS802 | 1 | |
| FLAT WIRE ASS'Y | 05-400-H YP4 | 1 | CN17 |
| FLAT WIRE ASS'Y | 05-200-H LE6 | 1 | CN18 |
| SHIELD WIRE | 05-250-H RY1 | 1 | CN21 |
| SHIELD WIRE | 05-300-H GRY5 | 1 | CN22 |
| SHIELD WIRE | 05-250-H GRY3 | 2 | CN23 |
| WIRE | 05-200-05 U1 | 1 | |

| DESCRIPTION | SPECIFICATION | UNIT | REMARK |
|---|---|---|---|
| WIRE | 05-200-05 01 | 1 | |
| WIRE | 05-100-05 Y1 | 1 | |
| WIRE | T-130-T K1 | 1 | |
| | **MAIN** | | |
| PCB | 197 x 197 | 1 | |
| DIODE | IN5402 | 4 | D217.218.219,220 |
| DIODE | IN4002 | 1 | D221 |
| DIODE | IN4148M | 8 | D202.204.206,207,213,214,216, D222 |
| DIODE | IN4148 | 6 | D210.203.205,209.211,212 |
| ZENER | 12V/0.5W | 1 | D201. |
| RELAY | HR-CR323 DC24V | 1 | |
| RCA JACK | J40200280N | 1 | |
| SPEAKER TERMINAL | P-40420450P | 1 | |
| I.C | MC4558C | 2 | IC201.205 |
| I.C | TC9164N | 1 | IC202 |
| I.C | BA3416 | 1 | IC203 |
| I.C | UPC 1330HA | 1 | IC204 |
| I.C | MC7815 | 1 | IC206 |
| I.C | MC7915 | 1 | IC207 |
| I.C | MC7805 | 1 | IC208 |
| T.R | KSC 2785Y | 11 | Q201.203.206.207,232,233.241 Q242.243,244,253 |
| T.R | KSC 945CY | 5 | Q225.226.234,248,255 |
| T.R | KSC733CY | 2 | Q251.237 |
| T.R | A1267Y or KSA1175Y | 3 | Q202.238,252 |
| T.R | KSC2316Y | 3 | Q230.245,254 |
| T.R | KSA916Y | 4 | Q229.235.247,250 |
| T.R | D2059Y or TIP41C | 2 | Q231,246 |
| T.R | B1367Y or TIP42C | 2 | Q236.249 |
| T.R | A111M or KSR2210 | 1 | Q239 |
| T.R | A107M or KSR2206 | 4 | Q224,240,256,257 |
| T.R | C111M or KSR 1210 | 5 | Q208.209.210,217,218 |
| T.R | C104MY or KSR1204 | 13 | Q204.205.211,212,213,214,215 Q216.219,220,221,222,223 |
| OSC COIL | SLD 01/8C004G | 1 | T202 |
| INDUCTOR | 27MH | 2 | L201.202 |
| INDUCTOR | 2.7MH | 2 | L203.204 |
| SBMI VR | 2.2K | 1 | SV204 |
| SEMI VR | 5K | 1 | SV205 |
| SEMI VR | 10K | 1 | SV203 |
| SEMI VR | 100K | 3 | SV201,202,206 |
| ELECT CAP | 50/4700 | 1 | C306 |
| ELECT CAP | 50/3300 | 1 | C305 |
| ELECT CAP | 10/100 | 3 | C231,242,247 |
| ELECT CAP | 16/100 | 1 | C314 |
| ELECT CAP | 50/47 | 1 | C307 |
| ELECT CAP | 16/47 | 3 | C243,279,316 |
| ELECT CAP | 10/47 | 4 | C220,276,292,293 |
| ELECT CAP | 35/22 | 1 | C301 |
| ELECT CAP | 16/22 | 5 | C226,244,250,286,289 |
| ELECT CAP | 50/10 | 14 | C209,215,217,218,219,232,233, C234,260,261,296,298,302,317 |
| ELECT CAP | 50/4.7 | 8 | C207,208,228,229,249,268,269 C297 |
| ELECT CAP | 50/3.3 | 1 | C223 |
| ELECT CAP | 50/2.2 | 9 | C212,216,221,227,230,283,284 C285,288 |
| ELECT CAP | 50/1 | 2 | C251,246 |
| CERAMIC CAP | 3P | 2 | C295,300 |
| CERAMIC CAP | 47P | 1 | C222 |
| CERAMIC CAP | 82P | 2 | C252,254 |

| DESCRIPTION | SPECIFICATION | UNIT | REMARK |
|---|---|---|---|
| CERAMIC CAP | 100P | 10 | C201,202,203,204.275,277,290 C291,294,299 |
| CERAMIC CAP | 0.0047 | 2 | C321,322 |
| CERAMIC CAP | 560P | 3 | C225,235,236 |
| CERAMIC CAP | 0.001u | 7 | C205,206,224,253.255.318,319 |
| CERAMIC CAP | 0.022u | 3 | C308,309,310 |
| CERAMIC CAP | 0.0012u | 4 | C239.240,237,238 |
| MYLAR CAP | 0.0068 | 4 | C211,214,258,259 |
| MYLAR CAP | 0.012 | 2 | C272.273 |
| MYLAR CAP | 0.015 | 2 | C270.271 |
| MYLAR CAP | 0.022 | 6 | C245.210.213.303.304.315 |
| MYLAR CAP | 0.018 | 4 | C256.257,264,265 |
| MYLAR CAP | 0.033 | 2 | C241.248 |
| MYLAR CAP | 0.0047 | 3 | C281.280,278 |
| MYLAR CAP | 0.047 | 2 | C266.267 |
| MYLAR CAP(P.P) | 0.012(DT123 | 1 | C274 |
| RESISTOR | 1/6W 10 | 1 | R258 |
| RESISTOR | 1/4W 10 | 1 | R259 |
| RESISTOR | 1/4W 15 | 1 | R282 |
| RESISTOR | 1/6W 15 | 1 | R281 |
| RESISTOR | 1/6W 22 | 2 | R260.261 |
| RESISTOR | 1/4W 27 | 2 | R283.284 |
| RESISTOR | 1/4W 47 | 1 | R367 |
| RESISTOR | 1/4W 82 | 1 | R323 |
| RESISTOR | 1/6W 82 | 1 | R344 |
| RESISTOR | 1/4W 100 | 6 | R213.219,220,221.288.294 |
| RESISTOR | 1/6W 120 | 2 | R293.306 |
| RESISTOR | 1/4W 220 | 2 | R211,216 |
| RESISTOR | 1/6W 220 | 1 | R225 |
| RESISTOR | 1/4W 270 | 1 | R233 |
| RESISTOR | 1/6W 330 | 3 | R277,327,347 |
| RESISTOR | 1/6W 390 | 2 | R266.363 |
| RESISTOR | 1/4W 470 | 1 | R224 |
| RESISTOR | 1/6W 470 | 2 | R320,375 |
| RESISTOR | 1/4W 680 | 2 | R236,242 |
| RESISTOR | 1/6W 680 | 3 | R290,305,369 |
| RESISTOR | 1/6W 820 | 1 | R368 |
| RESISTOR | 1/6W 1K | 4 | R298,302,325,345 |
| RESISTOR | 1/6W 1.2K | 2 | R315,317 |
| RESISTOR | 1/4W 2.2K | 15 | R232,241,244,250.269.270.271, R272,285,289,291,303.321,312 R253,232 |
| RESISTOR | 1/6W 2.2K | 5 | R205.206,222,324,348 |
| RESISTOR | 1/6W 2.7K | 2 | R297,301 |
| RESISTOR | 1/4W 3.3K | 1 | R352 |
| RESISTOR | 1/6W 3.3K | 5 | R326,331,333,346.354 |
| RESISTOR | 1/4W 3.9K | 2 | R267,318 |
| RESISTOR | 1/6W 3.9K | 1 | R268 |
| RESISTOR | 1/4W 4.7K | 8 | R201,202,203,204.237.243,27 R252 |
| RESISTOR | 1/6W 4.7K | 3 | R230,255,364 |
| RESISTOR | 1/4W 6.8K | 1 | R360 |
| RESISTOR | 1/6W 6.8K | 4 | R319,334,341,361 |
| RESISTOR | 1/4W 10K | 2 | R254,371 |
| RESISTOR | 1/6W 10K | 5 | R275,276,278,307,370 |
| RESISTOR | 1/4W 12K | 2 | R215,218 |
| RESISTOR | 1/4W 15K | 1 | R228 |
| RESISTOR | 1/6W 15K | 2 | R312,338 |
| RESISTOR | 1/4W 18K | 2 | R336,356 |
| RESISTOR | 1/4W 22K | 1 | R229 |
| RESISTOR | 1/6W 22K | 8 | R263,279,280,295,299.311,33, R362 |
| RESISTOR | 1/4W 33K | 4 | R262,273,274,357 |
| RESISTOR | 1/4W 39K | 1 | R231 |

| DESCRIPTION | SPECIFICATION | UNIT | REMARK |
|---|---|---|---|
| RESISTOR | 1/4W 47K | 7 | R223,238,239,245,292,304,313 |
| RESISTOR | 1/6W 47K | 7 | R212,227,246,314,316,322,343 |
| RESISTOR | 1/6W 56K | 2 | R209,210 |
| RESISTOR | 1/4W 100K | 8 | R248,251,256,257,264,286,287 R339 |
| RESISTOR | 1/6W 100K | 3 | R226,249,265 |
| RESISTOR | 1/4W 150K | 1 | R372 |
| RESISTOR | 1/4W 180K | 3 | R214,217,340 |
| RESISTOR | 1/6W 220K | 2 | R207,208 |
| RESISTOR | 1/4W 470K | 1 | R235 |
| RESISTOR | 1/6W 470K | 1 | R240 |
| METAL OXIDE | 1W 0.22 | 2 | R332,353 |
| METAL OXIDE | 2W 0.27 | 4 | R329,330,350,351 |
| METAL OXIDE | 2W 47 | 1 | R366 |
| METAL OXIDE | 1/4W10 | 4 | R337,355,373,374 |
| METAL OXIDE | 1/2W 270 | 2 | R328,349 |
| METAL OXIDE | 1/4W 1 | 1 | R375 |
| PIN SQ | | 5 | |
| JUMP WIRE | 5MM | 17 | |
| JUMP WIRE | 10MM | 59 | |
| WAFER | 2.5MM 2P | 1 | CN21 |
| WAFER | 2MM 3P | 2 | CN13, CD 1N |
| WAFER | 2.5MM 3P | 1 | CN23 |
| WAFER | 2MM 4P | 4 | CN12,17,19,20 |
| WAFER | 2.5MM 4P | 1 | CN08 |
| WAFER | 2MM 5P | 1 | CN06 |
| WAFER | 2.5MM 5P | 3 | CN02,14,25 |
| WAFER | 2MM 6P | 1 | CN18 |
| WAFER | 2MM 7P | 1 | CN24 |
| FLAT WIRE ASS'Y | 05-230-H GY3 | 1 | CN15 |
| SHIELD ASS'Y | B-380-H RU5 | 1 | PHONO |
| WIRE | 05-60-05-K1 | 1 | |
| HEAT SINK | A | 1 | |
| HEAT SINK | B | 1 | |
| SCREW | BH 3X8T2 | 8 | |

## REMOCON

| | | | |
|---|---|---|---|
| I.C | TC9243F | 1 | I.C401 |
| T.R | C3024Y or KSD1021Y | 1 | Q401 |
| CERAMIC FILTER | BSB455EB | 1 | CF401 |
| LED | SLV26 | 1 | LD401 |
| INFRAD LED | | 1 | LD402 |
| CERAMIC CAP | 100P | 2 | C402,403 |
| ELEC CAP | 6.3/4.7 | 1 | C401 |
| RESISTOR | 1/4W 270 | 1 | R403 |
| RESISTOR | 1/4W 33 | 1 | R401 |
| RESISTOR | 1/4W 6.8K | 1 | R402 |
| P.C.B | 121x46x1.6T | 1 | |
| SILICON RUBBER | | 1 | |
| REMOCON SHEET | PC0.25T or PVC0.3T | 1 | |
| TOP CASE REMO | ABS BLK | 1 | |
| BOTTOM CASE REMO | ABS BLK | 1 | |
| BATTERY COVER | ABS BLK | 1 | |
| WINDOW REMOCON | ACRYL SMOG | 1 | |
| SCREW(BLK) | 2.6x8 T1 | 1 | |
| BATTERY SPRING | A | 1 | |
| BATTERY SPRING | B | 1 | |
| BATTERY SPRING | C | 1 | |
| WIRE | 05-50-05 | 1 | |

## SET ASS'Y

| DESCRIPTION | SPECIFICATION | UNIT | REMARK |
|---|---|---|---|
| FRONT PANEL | HIPS 713 | 1 | |
| CASSETTE HOLDER | HIPS 614 | 2 | |
| PLAYER BASE | HIPS 713 | 1 | |
| SIDE COVER(L.R) | HIPS 713 | 2 | |
| LED INDICATOR | ACRYL | 7 | |
| WINDOW TUNER | ACRYL SMOG | 1 | |
| WINDOW E.Q | ACRYL SMOG | 1 | |
| DOOR WINDOW(L.R) | ACRYL SMOG | 2 | |
| DECK KNOB A | ABS BLK | 10 | |
| DECK KNOB B | ABS BLK | 1 | |
| TACT KNOB A | ABS BLK | 4 | POWER TUNING UP/DOWN BAND |
| TACT KNOB B | ABS BLK | 3 | MUTE. CLOCK. STEREO |
| PUSH KNOB A | ABS BLK | 2 | $CrO_2$ HI SPEED |
| PUSH KNOB B | ABS BLK | 1 | SURROUND |
| PRESET KNOB | ABS BLK | 1 | |
| FUNCTION KNOB | ABS BLK | 1 | |
| VOLUME KNOB | ABS BLK | 1 | |
| DOOR BASE(L.R) | ABS BLK | 2 | |
| ANT HOLDER | ABS BLK | 1 | |
| EJECT SPRING | SUS304 | 2 | |
| VOLUME BKT | SECC 1.0T(68x27) | 1 | |
| SIDE BKT | SECC 1.0T(27x15) | 4 | |
| DECK KNOB BKT | SECC 1.0T(94x9) | 2 | |
| REAR CHASSIS | SECC 1.0T(337x50) | 1 | |
| BOTTOM CHASSIS | SECC 1.0T | 1 | |
| DUMPER GEAL | G-332 | 2 | |
| FIBER | 70x80x1T | 1 | |
| FELT | 5x10 1T (BLK) | 2 | |
| CUSHION FOOT | 7.5 PHI | 1 | |
| CODE PHUS | SNR-16 | 1 | |
| BANDING WIRE | 80MM | 2 | |
| SCREW (BLK) | BHT 3x10 T2 8 PHI | 17 | SIDE(L)8. SIDE(R)9 |
| W/SCREW | BHT 3x10 T2 8 PHI | 9 | ANT2. SP-TER2. REAR5 |
| W/SCREW | BHT 3x12 T2 8 PHI | 1 | ANT1 |
| W/SCREW | BHT 3x10 T2 10 PHI | 3 | TUNER2. REAR1 |
| W/SCREW | BHT 3x10 T2 20 PHI | 2 | PHONE1. MIC1 |
| SCREW | BHT 3x8 T2 | 39 | TUNING2. POWER BAND3. VR2. EQ.PCB6. SURROUND2. $CrO_2$ 2.HI SPEED2. DECK6. BOTTOM6. DECK KNOB4. CAMPER 2.FUSE PCB2. |
| SCREW | BHT 3x10 T2 | 8 | AUX2. SURROUND JACK2. CD+MAIN 2.MAIN PCB2 |
| SCREW | BHT 4x10 T3 | 4 | |
| TURN TABLE | HT-962PM | 1 | |
| DUST COVER | | 1 | ACC |
| HINGE | | 2 | |
| ADAPTOR | 45RPM | 1 | |
| AM ANT | | 1 | |
| FM ANT | | 1 | |
| MANUAL | | 1 | |
| W/CARD | | 1 | |
| VINYL PLOY BAG | SET | 1 | |
| VINYL PLOY BAG | MANUAL | 1 | |
| SNOW PAD | TOP | 1 | |
| SNOW PAD | BOTTON | 1 | |
| STICKER | DANGER & COST | 1 | |
| STICKER | CLASS 1 | 1 | |
| STICKER | SERIAL NO | 2 | |
| CARD | A | 1 | |
| CARD | B | 1 | |
| CARTON BOX | | 1 | |
| SPEAKER | | 1 | |

| DESCRIPTION | SPECIFICATION | UNIT | REMARK |
|---|---|---|---|
| SOLDER BAR | | 36 | |
| SOLDER WIRE | | 25 | |
| BOND | | 2 | |
| LOCKING PAINT | | 0.1 | |
| PARAPIN | | 0.5 | |
| ALCHOL | | 0.5 | |
| FLUX | | 10 | |
| COM POUND | | 0.7 | |
| OPP TAPE | | 8 | |
| CD BODY | 7030R | 1 | |
| | **SUB** | | |
| PCB | 197x247 | 1 | |
| I.C | KIA3600 or KA2223 | 2 | IC101.102 |
| I.C | BA6124 or KA2284 | 2 | IC103.104 |
| I.C | TC9174P | 1 | IC106 |
| I.C | TC9173P | 1 | IC105 |
| MOTOR VR | RK16Y12MA-100 KBx2 | 1 | VR106 |
| SLIDE VR | RS20H123D-50KWx2 | 5 | VR101,102.103,104,105 |
| BALANC VR | RS20H 113D-100KB | 1 | VR107 |
| T.R | KSC2785Y or C3199Y | 4 | Q101,102,107,108 |
| T.R | KSR2206 or A107MY | 5 | Q103,104,110,111,227 |
| T.R | KSR 1204 or C104MY | 1 | Q228 |
| T.R | KSB 1116 or A950 | 2 | Q106.109 |
| DIODE | IN4148M | 2 | D102,104 |
| DIODE | IN4148 | 4 | D101,103,105,106 |
| LED | SLV31VC3 | 8 | LD101.102.103.104.105.201.202.VR |
| LED | SLV31DC3 | 10 | LD106,107,108,109,110,111, LD112,113,114,115 |
| TACT S/W | STS 1101 | 26 | S101,102,104,105,106,107,108, S109,110,111,112,113,114,115, S116,117,118,119,120,121,122, S123,124,125,126,127 |
| PUSH S/W | SPS 2208 | 3 | S128,207,208 |
| MIC JACK | HTJ064-04B | 2 | J201,202 |
| RCA JACK | J40200280N | 1 | SURROUND |
| CERAMIC CAPP | | 2 | C111, 122 |
| CERAMIC CAP | 0.047 | 3 | C133,140,141 |
| CERAMIC CAP | 390P | 2 | C115,127 |
| MYLAR CAP | 0.0012 | 2 | C114,126 |
| MYLAR CAP | 0.0039 | 2 | C110,124 |
| MYLAR CAP | 0.0068 | 2 | C116,128 |
| MYLAR CAP | 0.012 | 2 | C108,144 |
| MYLAR CAP | 0.022 | 2 | C113,125 |
| MYLAR CAP | 0.039 | 2 | C104,118 |
| MYLAR CAP | 0.068 | 2 | C109,123 |
| ELECT CAP | 50/0.22 | 2 | C107,143 |
| ELECT CAP | 50/0.68 | 2 | C103,117 |
| ELECT CAP | 50/2.2 | 2 | C129,130 |
| ELECT CAP | 50/3.3 | 2 | C101,102 |
| ELECT CAP | 50/10 | 5 | C112,121,132,131,142 |
| ELECT CAP | 16/22 | 3 | C106,119,145 |
| ELECT CAP | 10/47 | 3 | C105,134,135 |
| ELECT CAP | 16/47 | 1 | C120 |
| ELECT CAP | 10/100 | 1 | C138 |
| RESISTOR | 1/4W 4.7 | 1 | R133 |
| RESISTOR | 1/4W 47 | 2 | R134,135 |
| RESISTOR | 1/4W 390 | 2 | R103,138 |
| RESISTOR | 1/4W 470 | 2 | R123,124 |
| RESISTOR | 1/4W 1K | 3 | R113,114,132 |

| DESCRIPTION | SPECIFICATION | UNIT | REMARK |
|---|---|---|---|
| RESISTOR | 1/4W 1.5K | 7 | R127,128,129,130.131.309,310 |
| RESISTOR | 1/4W 2.2K | 1 | R105 |
| RESISTOR | 1/6W 2.2K | 1 | R106 |
| RESISTOR | 1/4W 4.7K | 4 | R111,112.120.121 |
| RESISTOR | 1/6W 4.7K | 2 | R101,102 |
| RESISTOR | 1/4W 10K | 4 | R104,110.137.139 |
| RESISTOR | 1/6W 10K | 2 | R109.136 |
| RESISTOR | 1/4W 22K | 1 | R126 |
| RESISTOR | 1/4W 47K | 2 | R115.116 |
| RESISTOR | 1/4W 330K | 2 | R107,108 |
| RESISTOR | 1/2W 120 | 1 | R308 |
| RESISTOR | 1/2W 270 | 2 | R358.359 |
| LUG TERMINAL | AC IN | 2 | |
| WAFER | PIN SQ | 3 | |
| WAFER | 2MM 2P | 2 | CN 10 VRLED |
| WAFER | 2MM 3P | 1 | CN11 |
| WAFER | 2MM 4P | 1 | CN26 |
| WAFER | 2MM 5P | 1 | CN25 |
| WAFER | 2MM 6P | 1 | CN09 |
| SHIELD WIRE | B-270-H GRT3 | 1 | CN13 |
| FLAT WIRE | 05-350-HOK1 | 1 | CD INABLE |
| FLAT WIRE ASS'Y | B-400-H YG2 | 1 | CN10 |
| FLAT WIRE ASS'Y | H-220-H GB2 | 1 | VR LED |
| FLAT WIRE ASS'Y | H-100-H GY3 | 1 | CN11 |
| FLAT WIRE ASS'Y | B-300-H YP4 | 1 | CN04 |
| FLAT WIRE ASS'Y | 05-220-H YP4 | 1 | CN08 |
| FLAT WIRE ASS'Y | B-380-H YP4 | 1 | CN12 |
| FLAT WIRE ASS'Y | B-320-H RK4 | 1 | CN19 |
| FLAT WIRE ASS'Y | B-270-H UY4 | 1 | CN20 |
| FLAT WIRE ASS'Y | 05-420-H KW5 | 1 | CN14 |
| FLAT WIRE ASS'Y | B-220-H GB5 | 1 | CN25 |
| FLAT WIRE ASS'Y | B-100-H RK4 | 1 | CN26 |
| FLAT WIRE ASS'Y | B-200-H BG6 | 1 | CN05 |
| FLAT WIRE ASS'Y | B-200-H UR6 | 1 | CN07 |
| FLAT WIRE ASS'Y | B-210-H BG7 | 1 | CN24 |
| FLAT WIRE ASS'Y | B-200-H BG8 | 1 | CN03 |
| WIRE | 05-120-05 W1 | 1 | A |
| WIRE | 05-450-H0 R1 | 2 | B. CD CABLE |
| WIRE | 05-140-HO K1 | 1 | C |
| WIRE | 05-300-HO W1 | 1 | D |
| WIRE | 05-05-05 U1 | 1 | MOTOR VR |
| WIRE | 05-50-05 Y1 | 1 | MOTOR VR |
| JUMP WIRE | 5MM | 13 | |
| JUMP WIRE | 10MM | 18 | |
| | **POWER TRANS ASS'Y** | | |
| P.C.B | 99x69x1.6T/ | 1 | |
| TRANS FOMER | 7030R 230 | 1 | T201 |
| FUSE HOLDER | | 4 | |
| CERMIC CAP | 473 | 1 | |
| FUSE | 3.15A/250V | 2 | |
| WAFER | 2.5MM 3P | 1 | CN15 |
| FLAR WIRE ASS'Y | 05-400-H KW3 | 1 | CN16 |
| POWER CORD | KLP-419C | 1 | |
| RESISTOR | 0.47 | 1 | |
| POWER CORD | KLCE-2F | 1 | NESCO ONLY ACC |

| DESCRIPTION | SPECIFICATION | Q'TY | REMARK |
|---|---|---|---|
| | **CD** | | |
| I.C | LA 9210N | 1 | IC01 |
| I.C | LC 7860K | 1 | IC02 |
| I.C | LC 3517BS | 1 | IC03 |
| I.C | LA 6531 | 2 | IC04,05 |
| I.C | LC5864H-90V1 | 1 | IC06 |
| I.C | MC7805 | 1 | IC07 |
| I.C | LC7881M | 1 | IC08 |
| I.C | MC4558C | 1 | IC09 |
| CRYSTAL | 8.6436MHZ | 1 | X01 |
| CRYSTAL FILTER | 4.00MHZ | 1 | X02 |
| DIODE SW | IN4148 | 12 | D01,04,05,06,08.09,16-21 |
| DIODE RECT | IN4002 | 4 | D11-14 |
| DIODE ZENER | ZD 7.5V | 1 | D15 |
| T.R | KSA2210/A111M | 6 | Q15-20 |
| TR | KSB564CY | 1 | Q01 |
| T.R | KSC945CY | 7 | Q02,03,05,06,08.11,12 |
| T.R | KSC2316CY | 1 | Q09 |
| T.R | KSD73 | 1 | Q04 |
| RESISTOR | 1/6W 10 | 3 | R01,23,71 |
| RESISTOR | 1/6W 100 | 1 | R70 |
| RESISTOR | 1/6W 220 | 4 | R77,78,72,24 |
| RESISTOR | 1/6W 470 | 3 | R52,81,82 |
| RESISTOR | 1/6W 560 | 1 | R40 |
| RESISTOR | 1/6W 1K | 5 | R02,03,55,73,74 |
| RESISTOR | 1/6W 1.2K | 2 | R20,29 |
| RESISTOR | 1/6W 2.2K | 2 | R05,46 |
| RESISTOR | 1/6W 3.3K | 1 | R48 |
| RESISTOR | 1/6W 3.9K | 1 | R11 |
| RESISTOR | 1/6W 4.7K | 3 | R07,49,69 |
| RESISTOR | 1/6W 5.6K | 3 | R12,75,76 |
| RESISTOR | 1/6W 10K | 8 | R04,17,21,43,68.83,86.87 |
| RESISTOR | 1/6W 15K | 2 | R09,54 |
| RESISTOR | 1/6W 18K | 1 | R42 |
| RESISTOR | 1/6W 22K | 4 | R57,59,61,85 |
| RESISTOR | 1/6W 27K | 7 | R33,34,35,36,41,56,58 |
| RESISTOR | 1/6W 33K | 6 | R18,53,60,62,63.84 |
| RESISTOR | 1/6W 47K | 1 | R19 |
| RESISTOR | 1/6W 56K | 3 | R15,28,SV04 |
| RESISTOR | 1/6W 82K | 1 | R25 |
| RESISTOR | 1/6W 100K | 3 | R39,44,45 |
| RESISTOR | 1/6W 120K | 2 | R27,32 |
| RESISTOR | 1/6W 150K | 3 | R14,31,30 |
| RESISTOR | 1/6W 200K | 1 | R50 |
| RESISTOR | 1/6W 220K | 2 | R06,26 |
| RESISTOR | 1/6W 330K | 1 | R38 |
| RESISTOR | 1/6W 390K | 2 | R10,13 |
| RESISTOR | 1/6W 470K | 2 | R79,80 |
| RESISTOR | 1/6W 1M | 1 | R08,R22 |
| RESISTOR | 1/6W 3.3M | 1 | R16 |
| ELECT CAP | 50/1 | 5 | C09,48,49,57,58 |
| ELECT CAP | 50/4.7 | 3 | C63,64,70 |
| ELECT CAP | 16/10 | 1 | C14 |
| ELECT CAP | 10/47 | 5 | C01,04,08,13,25 |
| ELECT CAP | 10/100 | 5 | C18,19,34,52,54 |
| ELECT CAP | 6.3/2200 | 1 | C03 |
| ELECT CAP | 16/2200 | 1 | C53 |
| MYLAR CAP | 50V 102 | 1 | C32 |
| MYLAR CAP | 50V 332 | 1 | C20 |
| MYLAR CAP | 50V 103 | 3 | C05,35,37 |
| MYLAR CAP | 50V 183 | 1 | C10 |
| MYLAR CAP | 50V 333 | 6 | C12,15,23,27,29,36 |

| DESCRIPTION | SPECIFICATION | Q'TY | REMARK |
|---|---|---|---|
| MYLAR CAP | 50V 683 | 3 | C16,59,60 |
| MYLAR CAP | 50V 104 | 6 | C07,17,30,45,46,47 |
| CERAMIC CAP | 2P | 1 | C40 |
| CERAMIC CAP | 12P | 1 | C41 |
| CERAMIC CAP | 27P | 4 | C43,44,71,72 |
| CERAMIC CAP | 100P | 2 | C06,22 |
| CERAMIC CAP | 220P | 1 | C31 |
| CERAMIC CAP | 330P | 2 | C28.38 |
| CERAMIC CAP | 102 | 1 | C02 |
| CERAMIC CAP | 223 | 1 | C56 |
| CERAMIC CAP | 473 | 1 | C69 |
| CONNECTOR ASS'Y | B2.5-H2.5-P12 200M/M | 2 | CON04.05 |
| CONNECTOR ASS'Y | B2.5-H2.5-P7 150M/M | 1 | CON06 |
| CONNECTOR ASS'Y | B2.5-H2.5-P2 200M/M | 1 | CON07 |
| CONNECTUR ASS'Y | B2.5-H2.0-P3 250M/M | 1 | CON09 |
| CONNECTUR ASS'Y | B2.5-H2.0-P6 350M/M | 1 | CON10 |
| WAFER | 6PIN 2.0M/M | 1 | W01 |
| WAFER | 8PIN 2.0M/M | 1 | W02 |
| WAFER | 9PIN 2.0M/M | 1 | W03 |
| WAFER | 12PIN 2.5M/M | 2 | W04.05 |
| WAFER | 7PIN 2.5M/M | 1 | W06 |
| WAFER | 2PIN 2.5M/M | 1 | W07 |
| WAFER | 3PIN 2.5M/M | 1 | W08 |
| LCD DISPLAY | SLC60199RSN/CO | 1 | LCD01 |
| PILOT LAMP | 6.3V 80MA | 1 | LMP01 |
| TEST PIN | 1.2PHI | 10 | TP01-10 |
| TECT S/W | 4PIN | 10 | SW01-10 |
| JUMP WIRE | | 1 | |
| SEMI VR | 5KB | 1 | SV02 |
| SEMI VR | 10KB | 1 | SV01 |
| SEMI VR | 20KB | 1 | SV05 |
| SEMI VR | 100KB | 2 | SV03, SV06 |
| SEMI VR | 500KB | 1 | SV07 |
| CD MECHANICAL | CD862F2A/SF-90 NSY | 1 | |
| ASS'Y | | | |
| CD FRONT PANEL | HIPS713 | 1 | |
| CD SIDE COVER | HIPS713 | 1 | |
| OP/CL KNOB | HIPS713 | 1 | |
| LCD COVER | HIPS713 | 1 | |
| FOOT(F) | HIPS713 | 2 | |
| FOOT(DECK) | ABS | 4 | |
| W/WINDOW | DARK GRAY | 1 | |
| LCD FILTER | PVC 1.0T | 1 | |
| FOOT (R) | RUBBER | 2 | |
| MAIN CHASSIS | SPCT 0.8 | 1 | |
| SCREW | BH 3x8 T2 | 9 | MAINPCB5. SWPCB4 |
| SCREW(BLACK) | BH 3x10 T2 | 11 | SIDE4, REAR3, FOOT4 |
| SCREW | BH 3x8 | 2 | LCD2 |
| SCREW | BH 3x22 | 4 | MECH4 |